AudioNET

DNP

Digital Network Preamplifier

User's Manual

Contents

1   Preface

The Audionet Team congratulates you on your purchase of this unit.

Audionet components are no marketing products, they are authentic. Conceived and developed with scientific inspiration, professional engineering expertise and a passion for achieving the perfect sound. They are unique creations designed to inspire musical enjoyment and have an excellent reputation amongst all connoisseurs throughout the world. Each and every one of our precision-manufactured devices is individually crafted at our Bochum works by our experienced and passionate workforce.

But before you start listening to your new Audionet DNP, please read this manual carefully so you are able to use and enjoy all functions of this unit without drawback on music quality.

1.1   Included

Included you will find the following items:

- The stereo network preamplifier DNP

- The user's manual

- one standard mains cord

- one green-yellow cord for an additional earth connection

- F-adaptor for FM connection

- WLAN antenna

- Audionet System Remote Control *Harmony One*

1.2   Transport

⚠️   **Important**

- Please transport the DNP only in the included package.

- Always use the provided cloth bag to prevent scratches on the casing

- Please allow the DNP to adapt to the climatic conditions in your listening room before you switch on the unit for the first time after transport.

2   Overview front panel

power
key

set
key

IR remote
control receiver

Display

down
key

up
key
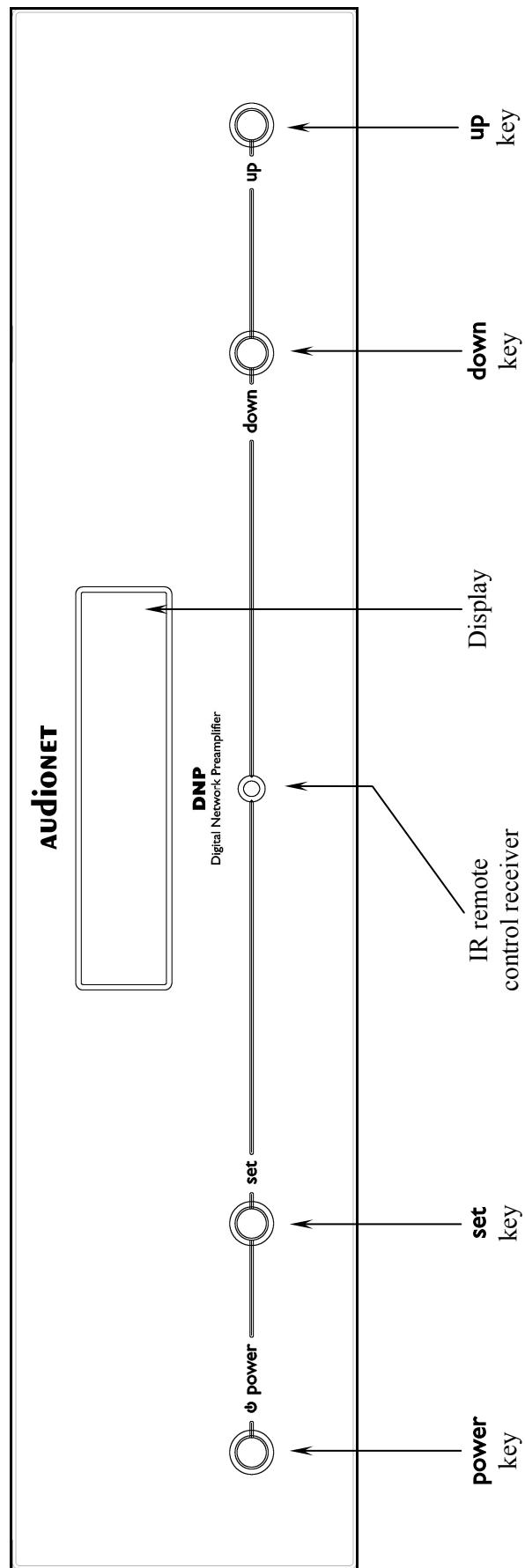
3   Overview back panel
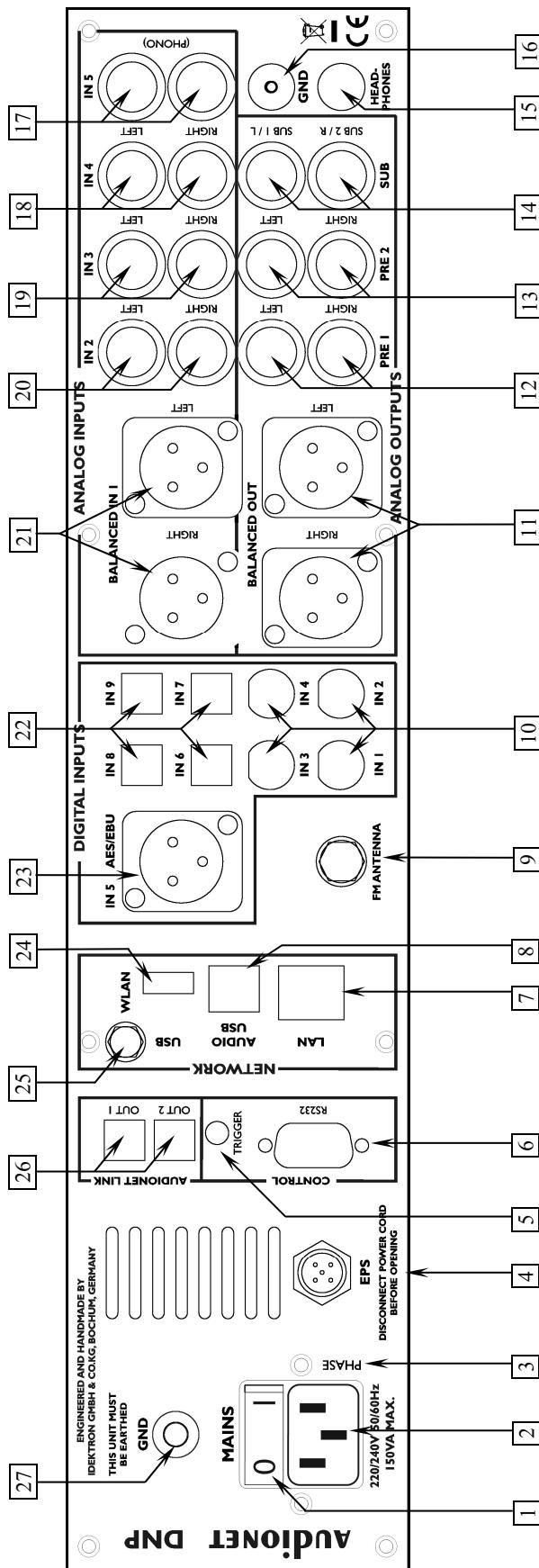
1   Mains switch

2   Mains input

3   Marking mains phase

4   5-pin connector for external power supply EPS

5   Trigger output (5 or 12 Volt)

6   Serial control port RS232

7   Ethernet connector LAN

8   USB Audio Input

9   FM antenna input

10 Digital input no. 1, no. 2 no.3 and no. 4, electrical

11 Balanced output (XLR), left/right

12 Preamplifier output **PRE OUT 1**, left/right

13 Preamplifier output **PRE OUT 2**, left/right

14 Subwoofer cinch output **SUB**, SUB1/SUB2 or multiroom out left/right

15 Headphones output

16 Earth connector for turntable (phono)

17 Cinch input no. 5, left/right

18 Cinch input no. 4, left/right

19 Cinch input no. 3, left/right

20 Cinch input no. 2, left/right

21 Balanced input no. 1, (XLR), left/right

22 Digital input no. 6, no. 7, no. 8, no. 9, optical

23 Digital input AES/EBU (XLR) no. 5

24 USB input

25 Connector WLAN antenna

26 Audionet Link output **OUT 1, OUT 2**

27 additional earth connector

4 Installation and power supply

⚠ **Important**

- **During connecting and removing of sources or amplifiers to the DNP all units of your audio system have to be switched off to prevent damage of the DNP or any of the other connected units.**

- **Please make sure that all cables are in absolute best conditions! Broken shields or short-cut cables could damage the DNP and/or any other connected unit.**

4.1 Placement

⚠ **Important**

- It is recommended to place the DNP into a high quality rack or onto a stable table.

- Do not expose the unit to direct sunlight.

- Do not cover the ventilation slots.

- Do not place the DNP in close range to heat sources like radiators.

- Do not place the DNP on top of other units, especially not on top of power amplifiers, preamplifiers or similar devices that produce heat. Both units could suffer damage from thermal overload.

- Do not place other units on top of the DNP. Both units could suffer damage from thermal overload.

- Do not use the unit in places where it is exposed to vibrations.

- Do not place the unit close to loudspeakers or into the corner of a room where it is exposed to high levels of sonic energy, which might reduce the sound quality of the unit.

4.2 Mains connection

The mains input 2 * is on the back panel of the DNP. To connect the device to mains use the included mains cord. If you prefer to use a different power cord make sure that it meets the specifications for your home country.

⚠ **Important**

- **The electrical specifications of your home country must meet the electrical specifications printed onto the back panel.**

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*see numbers in section ***"3 - Overview back panel" on page 10***.

- The DNP is a Class I unit and must be earthed. Please ensure a stable earth connection. Phase (hot pin) is marked on the back panel **phase** 3 .

- If you connect the mains cord please make sure that the mains switch 1 on the back panel is switched off.

- Never pull the mains plug while the DNP is switched on! Before you pull the mains cord off its socket 2 on the back panel, power down the unit to stand-by mode using **power** key, and switch off the unit using mains switch 1 .

Only in cases of extended absence – like vacations – or if massive trouble on the mains power grid is to be expected you should switch off the DNP from the mains using mains switch 1 . Then, to disconnect the unit completely from mains power grid, pull the mains plug.

☼ **Tip**

- The use of high quality mains cords can improve sound quality. Ask your local dealer for more information.

4.3   Orientation of mains plug

The correct polarization of mains is important for reasons of audio clarity and stability. Please connect the mains cord so that the hot pin of the wall outlet is connected to the pin of the mains input 2 marked **phase** 3 . Your Audionet DNP is able to detect a wrong polarization of the mains plug during start-up. If the message

```
►         Attention:         ◄
►   Mains phase incorrect   ◄
```
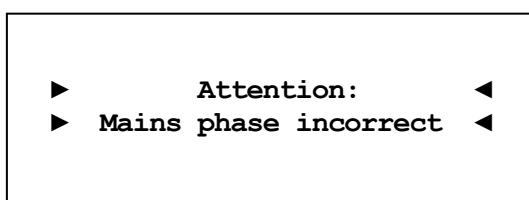
appears in the display, switch off the unit and flip the mains plug in the wall outlet (see section ***"6.1.3 - Mains phase detection" on page 21***).

5   Inputs and outputs

![Important icon] **Important**

- **During connecting and removing sources or amplifiers to the DNP all units of your audio system have to be switched off to prevent damage of the DNP or any of the other connected units.**

- **Please make sure that all cables are in absolute best conditions! Broken shields or short-cut cables could damage the DNP and/or any other connected unit.**

5.1   Audio inputs

5.1.1   Analog inputs

The DNP is equipped with four unbalanced cinch inputs **IN 2** [20], **IN 3** [19], **IN 4** [18] und **IN 5** [17] and with a balanced input **IN I** [21] for connecting signal sources at line level.

Please connect the left and right input of the same number printed on the back panel of the DNP to the corresponding output of the source you would like to connect to the DNP.

5.1.1.1 Optional phono input

The DNP can be upgraded with a phono preamplifier. Use input **IN 5** [17] to connect the turntable. Please connect the ground wire of the turntable to the terminal **GND** [16].

![Important icon] **Important**

- If the DNP is equipped with the optional phono module, input **IN 5** [17] must only be used to connect a turntable.

- Never use **IN 5** [17] as input for By-Pass mode, if the optional phono module is installed.

5.1.2   Digital input

Connect your digital sources to the electrical (coaxial) digital input **IN 1** to **IN 4** $\boxed{10}$ * or to the optical (TosLink) digital input **IN 6** to **IN 9** $\boxed{22}$. In addition there is a XLR socket **IN 5 AES/EBU** $\boxed{23}$ for connecting AES/EBU input signals.

5.1.2.1 Audionet HighBit input

In order to send audio data across the Audionet HighBit interface to your DNP, connect your source device (e.g. ART G3 or VIP G3) with **two** digital cords to the digital inputs **IN 1** and **IN 2**.

The following table shows how to connect Audionet HighBit-capable devices to the DNP:

Audionet HighBit			
Devices	**Output**		**DNP Input**
VIP G3	Digital OUT 1	➜	Digital IN1
	Digital OUT 2	➜	Digital IN2
ART G3	Digital OUT 1	➜	Digital IN1
	Digital OUT 2	➜	Digital IN2

⚠️   Important

- Only if **both** connections are established and Audionet HighBit mode is activated on your source device, you can transmit audio data with all sampling rates and full resolution.

✎   Note

- Check the corresponding section in user's manual for Audionet ART or VIP. User's manuals are available for download on our website *www.audionet.de*.

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* see number in section *"3 - Overview back panel" on page 10*.

5.2 Audio output

5.2.1 Preamplifier output

The DNP is equipped with four pairs of preamplifier outputs **BALANCED OUT** ⌐11⌐, **PRE 1** ⌐12⌐, **PRE 2** ⌐13⌐ and **SUB** ⌐14⌐ to connect amplifiers and one or two subwoofers. The **SUB** ⌐14⌐ preamplifier output can be switched to multiroom output with separate volume control.

5.2.2 Headphones Socket

A 6.3 mm headphones socket **HEADPHONES** ⌐15⌐ is located at the rear of your DNP. The signal at this socket can be switched on and off to allow the headphones to be plugged in permanently. Switching is easily done in the system menu, please refer to *"8.2.1 - Headphones" on page 41.*

5.3 Other connections

5.3.1 Network, USB, WLAN

The Ethernet port **LAN** ⌐7⌐ is a standard RJ45 socket for network cables (Cat-cable, 10/100 Mbit BASE-T).
The WLAN port **WLAN** ⌐25⌐ uses a SMA connection to attach the provided WLAN antenna. With the articulated joint the antenna can be turned into two directions.

The USB port **USB** ⌐24⌐ is a TYPE-A socket (USB 2.0) for external hard drive, USB sticks etc.

🖉 **Note**

- We recommend a wired network connection for best data transfer rate and to provide high stability in control with our software.

5.3.2 USB Audio

The USB Audio port **USB AUDIO** ⌐8⌐ is a USB TYPE-B-socket. With the USB Audio connection you are able to connect your DNP with a USB cable directly to a PC. Thus you can use your DNP as the sound device / playback device for your PC. Playback operates in asynchronous mode, that means the DNP uses its own clock and you are able to enjoy your music without diminishing sound quality.

For using USB Audio the required driver needs to be installed on your PC. For Apple devices using Mac OS X 10.6.4 and higher a suitable driver is included within the operating system. To receive the driver for Windows based systems please contact us via *service@audionet.de*.

- The driver is packed into a zip-file. To install the driver unpack the zip-file into a folder of your choice. Then open the chosen folder and start the installation process executing the file *setup.exe*.

- During the installation process all occurring security warnings can be confirmed with 'OK'.

- During the installation process your Audionet device has to be connected with your PC via an USB cable.

- After successful installation you can choose your DNP as the sound device / playback device of your PC. For configuration open the system preferences of your PC.

- Pay attention to the length of the USB cable. If the cable is too long you might diminish sound quality and / or experience dropouts during playback.

5.3.3   FM Antenna Connection

Your device has an F-series connector 9 for antenna connection. An adaptor to coaxial socket is delivered separately. This port is specified for 75 Ohm FM antenna or analog cable TV connection.

5.3.4   Audionet Link

For your convenience, the DNP can switch on/off all other Audionet units (e.g. power amplifiers) connected via Audionet Link by a simple touch on the remote control or the **power** key on the front panel.

You only need a simple optical TosLink cable. Connect the Audionet Link output **Link OUT** 26 of your DNP to the Audionet Link input of the unit to be controlled.

The DNP is equipped with two Audionet Link outputs **Link OUT** 26 . **Link OUT 1** is always on while the DNP is switched on. However, Audionet Link output **Link OUT 2** is controlled depending on the settings for the headphones output. Please refer to section *"8.2.1 - Headphones" on page 41*.

Therefore, use Audionet Link output **Link OUT 2** in order to connect power amplifiers to the DNP via Audionet Link. Connect units you would like to control independently from the headphones settings (e.g. tuner, CD player, etc) to Audionet Link output **Link OUT 1**.

✹   **Tip**

- Audionet source units and power amplifiers are usually equipped not only with an Audionet Link input, but additionally with an Audionet Link output to connect further Audionet devices to be controlled via Audionet Link in a daisy chain. Connect this Audionet Link output to the Audionet Link input of the next Audionet unit using a simple optical TosLink cable allowing you to switch on/off your complete Audionet system by your Audionet amplifier DNP.

5.3.5 External power supply EPX

Important

- **Never connect an EPS or EPS G2 to your DNP! The DNP as well as the EPS / EPS G2 might get damaged when used together!**

In order to use the optional external power supply Audionet EPX connect it with the delivered cable to socket **EPS** $\boxed{5}$ on the back panel of your DNP. Connect **both** (!!) **units** (DNP and EPX) to mains. First, switch on the DNP with the mains switch $\boxed{1}$ on its back panel. Then switch on the EPX. Now the DNP is ready to use (stand by mode).

Switch on the DNP with the **power** key on the front panel or keys $\boxed{\text{Power On}}$ or $\boxed{\text{Power Toggle}}$ of the Audionet System Remote Control *Harmony One*. The Audionet EPX will then be automatically switched on time-delayed.

To disconnect the DNP and EPX from mains, switch the DNP into stand-by mode. Use the **power** key on the front panel or the keys $\boxed{\text{Power Off}}$ or $\boxed{\text{Power Toggle}}$ on the system remote control. First, switch off the DNP with the mains switch $\boxed{1}$ on the back panel, and then switch off the EPX. Now you can disconnect the mains and EPX connection cables.

Important

- **Never switch on or off the EPX on its back panel while the DNP is operating!**

- **Before using the DNP in combination with the external power supply Audionet EPX please read the user's manual of the EPX carefully!**

5.3.6 Additional earth connection

An optional green-yellow cord for the additional earth connection is available from Audionet. Attach this cord to the earth connector $\boxed{27}$ on the back panel of the DNP and put the plug into the mains socket right beside the mains cord of your DNP. This ensures an additional and stable earth connection resulting in a better sound.

On the second ground connection **GND** $\boxed{16}$ you can connect the ground wire from a turntable (phono).

5.3.7 Control connections

Use trigger output **TRIGGER** $\boxed{5}$ to control (e.g. switch on/off) non Audionet devices. If you switch on the DNP from stand-by mode, the trigger output $\boxed{5}$ provides a signal of 12 Volts DC (see section *"8.3.4 - Trigger out" on page 50*), which can be re-configured to 5 Volts DC.

The serial connection **RS232** 6 is an additional control port to your DNP
e.g. for house automation systems (Crestron or the like).

⚙ **Tip**

- Use a 3.5 mm telephone mono plug to connect a device to the trigger
  output 5 of your DNP. The pinning is as follows:

Ground   Switching Voltage
                12V or 5V DC
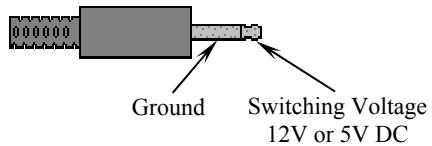
6   Usage

All functions of the DNP are microprocessor controlled. This guarantees highest precision, exclusive functions, easy handling and protection against operating errors.

6.1   Basic operations

6.1.1   Powering up

First of all, please make sure your DNP is connected correctly to your signal sources, power amplifier(s) and mains (see section *"4 - Installation and power supply" on page 11* and *"5 - Inputs and outputs" on page 13*).

The DNP is a stand-by unit. Please operate the mains switch $\boxed{1}$ on the back panel. The display shows a welcome message for a brief moment. After that the DNP is in stand-by mode.

Only in cases of extended absence (like vacations) or if massive trouble on the mains power is to be expected (e.g. thunder storms) it is recommended to disconnect the DNP from the mains. While the DNP is in stand-by mode, operate mains switch $\boxed{1}$ on the back panel. The display will go dark. To disconnect the DNP from mains completely, you have to pull the mains cord off the mains jack $\boxed{2}$.

⚠   **Important**

- **Before you switch off the DNP from mains, power down and discharge completely all units connected to the outputs of the DNP.**

6.1.2   Switching on and off

To power up the DNP from stand-by mode, press the **power** key on the front panel. The DNP issues the message:

```
┌─────────────────────────────────────┐
│                                     │
│                                     │
│           Waking up ...             │
│                                     │
│                                     │
└─────────────────────────────────────┘
```
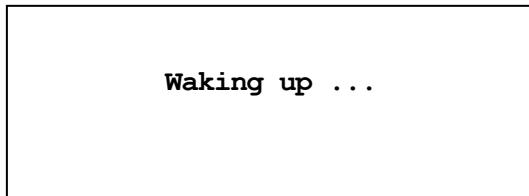
In case the mains plug has the incorrect polarization a warning will appear in the display (see section *"4.3 Orientation of mains plug" on page 12*). After that the unit is in normal operating mode and ready to use.

If you would like to switch off the unit, please press the **power** key on the front panel. The display shows the message

```
┌─────────────────────────────────────┐
│                                     │
│                                     │
│         Going to sleep ...          │
│                                     │
│                                     │
└─────────────────────────────────────┘
```
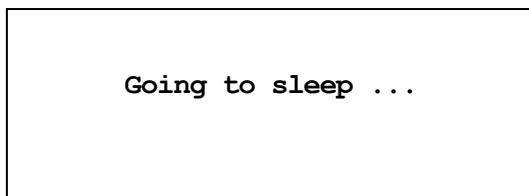
and the unit enters stand-by mode.

Note

- Of course, you may switch on/off the DNP with the Audionet System Remote Control *Harmony One*. For detailed information please refer to section *"7.7 - Screen 6" on page 38*.

6.1.3 Mains phase detection

The correct polarization of mains is important for reasons of audio clarity and stability. Please connect the mains cord with the hot pin of the wall outlet to the pin marked **phase** 3 of the mains input 2 on the back panel. The DNP recognizes the incorrect polarization of the mains plug automatically. Right after switching on the unit from stand-by mode by pressing the **power** key on the front panel the following message will appear in the display in case the mains polarization is incorrect:

```
┌─────────────────────────────────────┐
│                                     │
│                                     │
│    ►         Attention:       ◄     │
│    ►   Mains phase incorrect   ◄    │
│                                     │
│                                     │
└─────────────────────────────────────┘
```
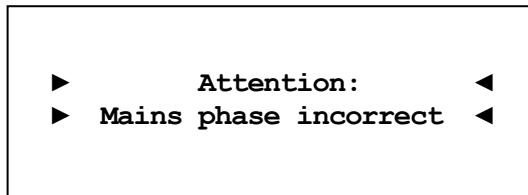
If you are alerted by the above message, switch off the unit by pressing the **power** key. Please wait until the display no longer reads:

```
┌─────────────────────────────────────┐
│                                     │
│                                     │
│          Going to sleep ...         │
│                                     │
│                                     │
└─────────────────────────────────────┘
```
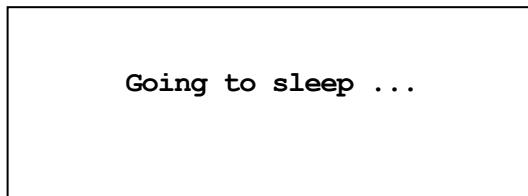
Disconnect the DNP from mains by operating the mains switch 8 . Now pull the mains plug and re-insert it into the mains socket rotated by 180°.

If you switch on the unit again, the warning should not appear now.

⚠ Important

- If the DNP issues the mains polarization warning or no warning at all for both positions of the mains plug, check the connection to earth of your mains socket and mains cord. **You have to ensure a stable connection to earth for the mains phase detection of the DNP to work correctly!**

6.1.4 Using Audionet Link

Your DNP is equipped with two Audionet Link outputs **Link OUT 1** 26 and **Link OUT 2** 26 allowing you to switch on/off further Audionet units (e.g. power amplifiers, CD player or tuner) connected via Audionet Link (also see section *"5.3.4 - Audionet Link" on page 16*).

If the rest of your Audionet system is connected to your DNP via Audionet Link, all linked units will be automatically switched on/off as soon as you switch on/off your DNP using the **power** key on the front panel or the Audionet System Remote Control *Harmony One*.

Note

- The switch on/off signal of the Audionet Link output **Link OUT 2** 26 is issued depending on the headphones settings (see section *"8.2.1 - Headphones" on page 41*).

- Please read section *"5.3.4 - Audionet Link" on page 16*. Also, consult the user's manual of your Audionet components connected via Audionet Link for further information.

- If you use Audionet Link to switch off other devices, please wait until everything is in stand-by mode before you switch on again.

6.1.5 Control elements on the front panel

The front panel has four keys to control the DNP (see section *"2 - Overview front panel" on page 9*). With these keys you can control all functions as well as all setup options to adjust the unit to your preferences (see section *"8 - Device setup" on page 39*).

power	Use key to switch on/off the unit (see section *"6.1.2 - Switching on and off" on page 20*).
set	Push key shortly to change input channel (see section *"6.2.4 - Input selection" on page 27*). Within a menu press shortly to open a subfolder or to confirm and save an adjustment. Push the key for longer than two seconds to get into system menu (see section *"8 - Device setup" on page 39*). Within a menu press long to step back and open the superior folder or to dismiss an adjustment without saving.
down	Push key to reduce volume, select previous input channel (see section *"6.2.4 - Input selection" on page 27*) or change an option of the setup menu (see section *"8 - Device setup" on page 39*).
up	Push key to increase volume, select next input channel (see section *"6.2.4 - Input selection" on page 27*) or change an option of the setup menu (see section *"8 - Device setup" on page 39*).

6.2   Detail operations

6.2.1 Display

The display provides the following information in the normal operating mode.

Depending on which channel you chose, you get different information. If there is more information to show you can switch display pages with the $\boxed{\text{Info}}$ key on system remote control *Harmony One* (see section *"7.1 - Key assignment DNP" on page 33*). You will need it especially for the NET input channel (see section *"6.2.1.4 - NET input" on page 24*). The following illustrations will show you the differences between the input channels. Your display could be different, because of your selected system adjustments.

6.2.1.1 Analog input channel
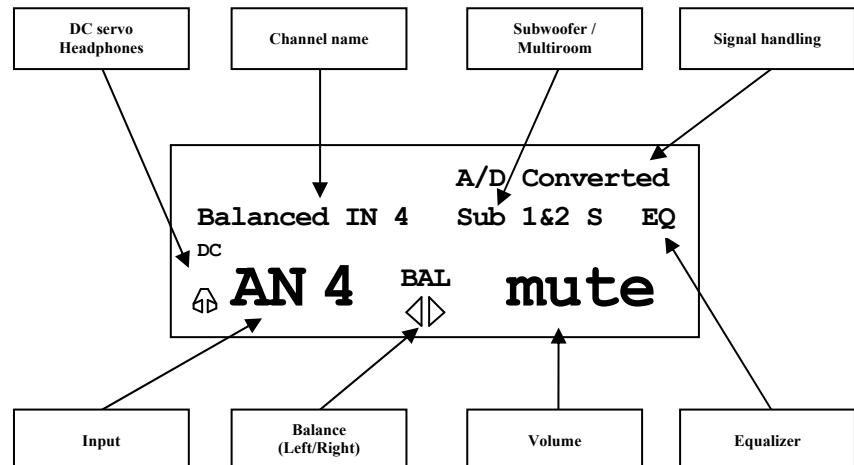
6.2.1.2 Digital input channel

23

6.2.1.3 FM tuner

Headphones		Subwoofer / Multiroom	Station frequency

```
WDR 2              99.20 MHz
FM Radio           Sub 1&2 M   EQ

     🎧 FM ⣿  BAL  -60 dB
              ◁▷
```

Input	received signal strength of FM Station	Balance (Left/Right)	Volume	Equalizer

6.2.1.4 NET input

- View 1:

Headphones	Channel name	Subwoofer / Multiroom

```
Streaming In    Sub 1      EQ

   🎧 NET    BAL  -60 dB
            ◁▷
```

Input	Balance (Left/Right)	Volume	Equalizer

- View 2:

Marker	Media devices and internet radio	Marker position	Folder icon

```
► Internetradio          ◄ 🗀
  USB                       🗀
  UPnP Server               🗀
              1 of 4
```

- View 3a (Play from UPnP or USB):

Title		Interpreter

```
Ludwig van Beethoven
Für Elise
WoO 59

►     mp3   00:00:01
```

Album	Play state Play/Stop/Pause	Media type	Play time
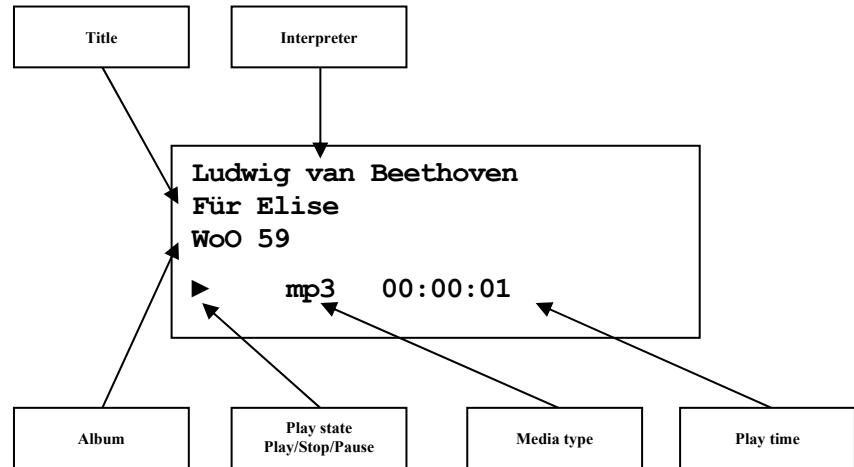
- View 3b (Play from internet radio station):

Title/Interpreter Station text	Station name

```
WDR Event
Track name


►     mp3   128 kbps
```

Play state Play/Stop/Pause	Data type	Data rate
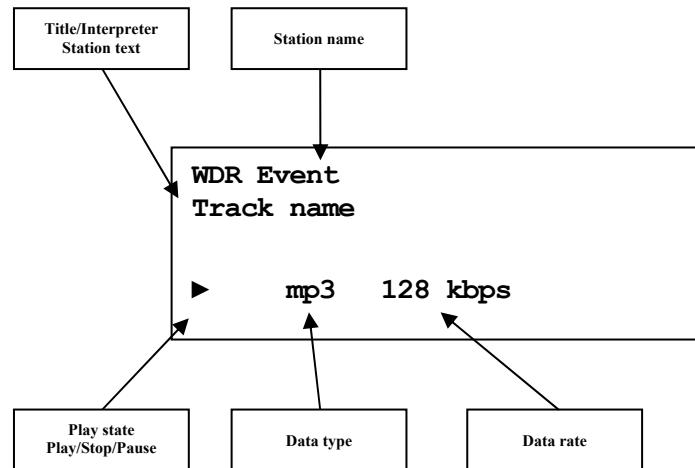
6.2.2　Volume control

When the DNP is in normal operating mode use the keys **up** and **down** on the front panel to adjust the volume. **up** to increase, **down** to decrease the volume. The volume control of the DNP runs in a range from **-80dB** (quiet) to **+10dB** (very loud) in real 1 dB steps in relation to the level of the input signal. You can also control the volume with your System Remote Control *Harmony One* or the software Audionet RCP. Multiroom volume can only be set with your system remote control *Harmony One* or the software Audionet RCP (see section ***"7.6 - Screen 5" on page 37*** and ***"8.4.1 - Loudspeaker" on page 53***).

6.2.3　Muting

📝　**Note**

- The muting function is available with the Audionet System Remote Control *Harmony One* (see section ***"7.1 - Key assignment DNP" on page 33***).

- You can also use software Audionet RCP

Press key ⌀ of the Audionet System Remote Control *Harmony One* to mute or un-mute your DNP.

Just as well as the input selection, the DNP uses soft muting, i.e. volume is stepped down gently to -80 dB, and then the outputs are switched off. The display informs the user of a muted unit with the text **MUTE**. Even if the dim level is set to **Off**, the text is displayed.

To un-mute the DNP press key ⌀ again. Here as well, the volume is stepped up gently to its original level after switching on the outputs.

📝　**Note**

- While the unit is muted, you may of course select a different input channel. But the DNP will stay muted until you press the key ⌀ again to un-mute and restore the original volume level.

- If you turn up the volume by using the **up** key or **Vol+**, while the DNP is muted, the muting function will be deactivated and the new volume level set.

6.2.4 Input selection

Push the **set** key on the front panel once for less than two seconds to enter the input selection menu. Then select the desired input channel with the keys **up** and **down**. In the display you see the selected input channel, channel number and your chosen channel name. Press **set** to apply the channel switching. Overview of DNP input channels:

No.	Inputs	Signal	see *3 - Overview back panel on page 10*
1	D1	Digital (electrical)	Digital Inputs IN 1 ⎢10⎥
2	D2	Digital (electrical)	Digital Inputs IN 2 ⎢10⎥
3	D3	Digital (electrical)	Digital Inputs IN 3 ⎢10⎥
4	D4	Digital (electrical)	Digital Inputs IN 4 ⎢10⎥
5	D5	Digital (AES/EBU)	Digital Inputs IN 5 ⎢23⎥
6	D6	Digital (optical)	Digital Inputs IN 6 ⎢22⎥
7	D7	Digital (optical)	Digital Inputs IN 7 ⎢22⎥
8	D8	Digital (optical)	Digital Inputs IN 8 ⎢22⎥
9	D9	Digital (optical)	Digital Inputs IN 9 ⎢22⎥
10	NET	Stream, USB, Internet radio	Network ⎢7⎥ ⎢24⎥ ⎢25⎥
11	USB	USB Audio In	USB Audio ⎢8⎥
12	FM	FM Tuner	FM Antenna ⎢9⎥
13	AN1	Balanced Line	Analog Inputs IN 1 ⎢21⎥
14	AN2	Unbalanced Line	Analog Inputs IN 2 ⎢20⎥
15	AN3	Unbalanced Line	Analog Inputs IN 3 ⎢19⎥
16	AN4	Unbalanced Line	Analog Inputs IN 4 ⎢18⎥
17	AN5	Unbalanced Line / Phono	Analog Inputs IN 4 ⎢17⎥

The DNP features a soft input selection. During the switching of inputs, first the volume is stepped down to –80 dB, followed by switching off the outputs. Now the input section switches to the new input channel. Afterwards the outputs are switched on again, and finally the volume is stepped up to its original level.

🖉 Note

- Leave the input selection function by holding down the **set** key longer than 2 seconds or wait a few seconds.

- Using the Audionet System Remote Control *Harmony One*, select an input channel by simply pressing the corresponding key (see section *"7.2 - Screen 1" on page 34, "7.3 - Screen 2" on page 35* and *"7.4 - Screen 3" on page 35*), or use the keys **Ch+** and **Ch-** to switch to the next or previous input channel without using the **Select Input** function.

6.2.5 FM tuner

For setting and saving radio stations to your DNP, please use the software Audionet RCP (see chapter *"8.1 - FM Radio"* in RCP user's manual). You can also setup your radio station frequency manually with your remote control. Use the keys of the Audionet System Remote Control *Harmony One* (see section *"7.1 - Key assignment DNP" on page 33*). Use keys Page Up / Page Down to change frequency manually. Use keys **up** / **down** of the directional pad to change presets. Press keys **left** / **right** to start an automatic scan for the nest / previous station.

6.2.6 NET input
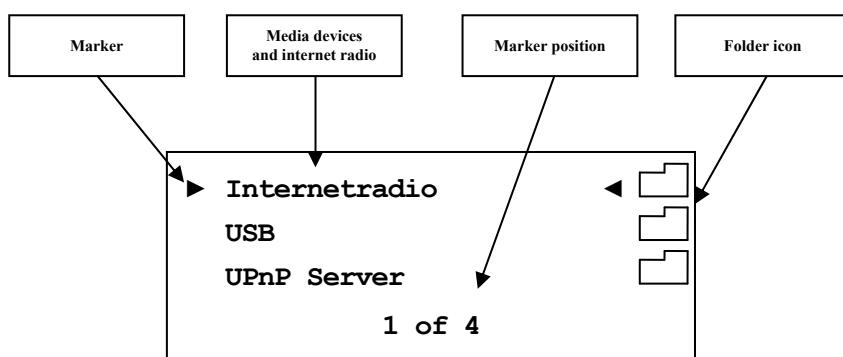
6.2.6.1 Internet radio

With the internet radio service *vTuner* it is possible to select your favourite radio stations from a steadily growing number of worldwide stations. You have to register with an account at *vTuner* to save your favourite stations and to receive personalized recommendations. Beforehand a stable network environment should be set up for your Audionet device (see section *"8.3 - Channel setup" on page 48*).

To register an account, open the website *http://audionet.vtuner.com*. You will be going to visit this address every time you wish to edit your favourite radio stations. As long as you do not have registered an account with your Audionet device, you have to click on *Register Here* right below the login. Additionally you will be requested to enter your E-Mail address, to choose a personal passphrase and to enter an access code. There a two possibilities to spot your access code. With the system remote control *Harmony One* select the NET input. Select the first menu item **Internet Radio** (**1 of 5**) using ⌷OK⌷ key. Navigate to menu entry **Get Access Code** (**13 of 14**). Confirm with ⌷OK⌷. Your access code consists of eight digits and is now shown in line 3 (**3 of 3**). Note down this code and enter it in the registration window within your browser.

⚠ Important

- Once you obtained your access code using system remote control *Harmony One*, note down the shown code and leave the remote

control aside. Proceed with the registration process. Otherwise every time you will enter menu item `Get Access Code` (`13 of 14`) a different code will be created for the MAC-address of your Audionet device.

The second possibility to receive the access code is to use the software Audionet RCP. With a stable connection established to your Audionet device, you might select NET input and open path "Home > Internet Radio > Get Access Code" within the UPnP tab. The code consists of eight digits and can be found in the third line.

As soon as you registered an account for your Audionet device, you are able to log in to the website *http://audionet.vtuner.com* and edit your favourite radio stations. Furthermore you are able to add radio stations to your favourites by right-clicking on the station name within software Audionet RCP.

6.2.6.2 USB

Connect your USB device to the DNP and wait until it appears in the display. Supported are all FAT and FAT32 formatted devices. Your USB device is shown in top level of NET input. You can navigate through your folder structure with directional pad on your system remote control *Harmony One* (see section ***"7.1 - Key assignment DNP" on page 33***).

6.2.6.3 UPnP server

The easiest way to play music from an UPnP server is to use the software
Audionet RCP.

Note

- Look out for separately available user's manual to our software
  Audionet RCP. You can find it on our website *www.audionet.de*.

If you want to use your System Remote Control *Harmony One*, it is the
same way to navigate through as shown above in section internet radio
and USB.

6.2.7 USB Audio

The USB Audio connection allows a direct connection of your DNP to
your PC. Audio files can then be played with your favorite software. The
DNP serves as sound device / playback device.
For further information see section *"5.3.2 - USB Audio" on Page 15*.

7   Audionet system remote control

Every function of the DNP is accessible via the Audionet system remote control *Harmony One*. Additionally, up to 14 other devices can be controlled by the *Harmony One*.

Press ⎣**Devices**⎦ key to enter **Device Mode**. The display now lists all devices included in the current configuration of the *Harmony One*. Select ⎣**DNP**⎦ from the list to set the *Harmony One* to controlling the DNP. The **Device Mode** gives you access to all the possible commands to control your DNP. The following explains all these commands in detail.

⚠ **Important**

- During everyday use, you should never need to use the Device Mode of your Harmony One, but control the DNP (and other devices of your audio setup) by customizing your Activities. For detailed information on how to customize and use Activities on your *Harmony One* please consult the separate user's manual for *Harmony One*. It is available for download on our website *www.audionet.de*.
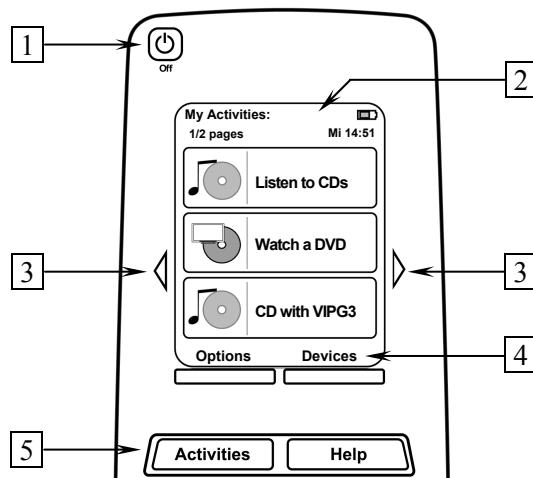
1. **Power** key for use with Activities, turns all devices off that are included into the current Activity. See separate user's manual for *Harmony One*.

2. Depending on the operational mode, the touch screen of the *Harmony One* shows a list of Activities or Devices, help or infrared commands and any available listings.

3. If a menu or listing stretches over more than one screen page, use the corresponding arrow buttons to go to the next or previous page of the menu or listing (see also separate user's manual for *Harmony One*).

4. **Devices** key, lists all the devices on the display, and allows you to select and directly control any device included in the configuration of the remote control (see separate user's manual for *Harmony One*). Select ⎣**DNP**⎦ to enter **Device Mode** for controlling the DNP.

5. **Activities** key: Press this key to view a list of Activities you have added. Press the button next to the Activity you want to select, and the *Harmony One* will control your entertainment system (see separate user's manual of *Harmony One*).

![icon] **Important**

- **The Power key** ⏻ **is only available for Activities. In Device Mode the Power key has no function.**

- **Even without using an Activity, the user is able to control all functions of the DNP using the *Harmony One* in Device Mode.**

- **The keys described below to control the DNP refer to the factory default programming of the Audionet System Remote Control Harmony One. Understandably, any changes done to this setup by the user cannot be discussed here.**

![icon] **Tip**

- In order to switch the DNP on/off, without using an Activity, please use the keys **Power On** , **Power Off** or **Power Toggle** on screen 6 (see section *"7.7 - Screen 6" on page 38*). Of course, it is possible to control the DNP without any Activity, but to tap the full potential of the *Harmony One* you need to configure Activities customized to your needs (please refer to separate manual of the remote control Harmony One).

![icon] **Note**

- Please read the separate user's manual to your Audionet System Remote Control *Harmony One*. Activities, Devices and Device Mode as well as customizing the remote control are discussed there. It is available for download on our website *www.audionet.de*.

7.1 Key assignment DNP
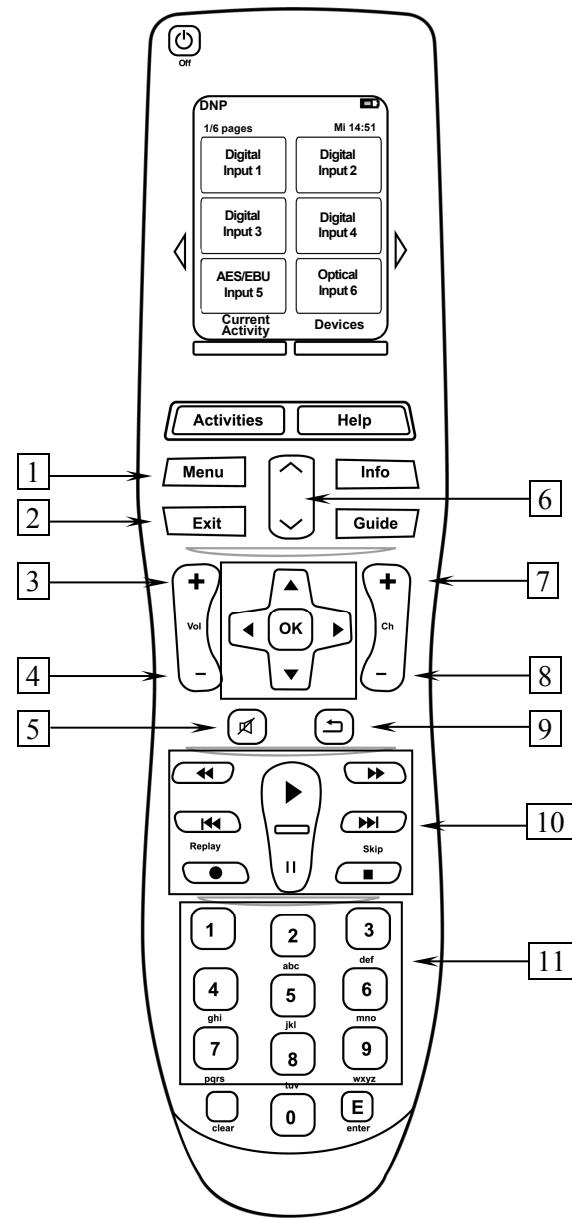
1 Use **Menu** key to navigate through the setup menus. This key has the same function as **set** key on the front panel (see section *"8.2 - Global setup" on page 41*).

2 **Exit** leaves every menu to go back to main screen. If you are in a submenu of the NET input you will get to the top level.

3 **Vol+** increases the volume of the DNP.

4 **Vol-** decreases the volume of the DNP.

5 ⌀ mutes the DNP (see section *"6.2.3 - Muting " on page 26*).

6 **Page up/down**. With this key you can scroll one display page (i.e. three entries or folders / files).

7 $\boxed{\text{Ch+}}$ switches to the next input channel (see section *"6.2.4 - Input selection " on page 27*).

8 $\boxed{\text{Ch-}}$ switches to the previous input channel (see section *"6.2.4 - Input selection " on page 27*).

9 **Cancel** to step back in menu, without saving any changes

10 **Player keys** for controlling media content if you chose NET input.

11 **Numeric keys** are used for input of numbers or letters (SMS principle) if the menu item supports direct letter input.

✎ **Note**

- The most important key is $\boxed{\text{OK}}$ located in the middle of the directional pad. To navigate backwards in menu use **Cancel** $\boxed{9}$, or leave the setup menu using **Exit** $\boxed{2}$.

- To increase the search speed, press Fast Forward key $\boxed{\blacktriangleright\blacktriangleright}$ or Rewind key $\boxed{\blacktriangleleft\blacktriangleleft}$ multiple times (depending on file format). Press key $\boxed{\blacktriangleright}$ to get back to normal playback.

7.2 Screen 1
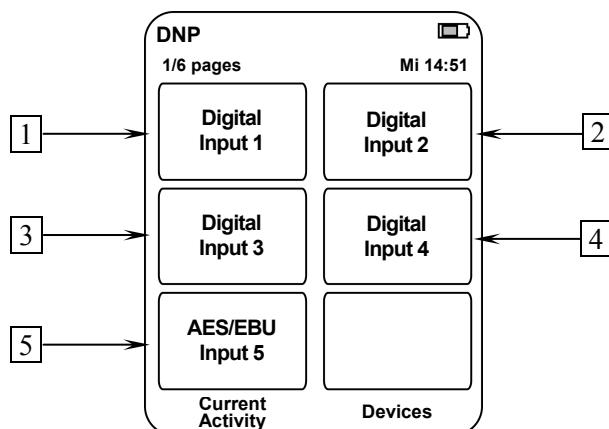
1 Directly selects input channel **D1** (coaxial).

2 Directly selects input channel **D2** (coaxial).

3 Directly selects input channel **D3** (coaxial).

4 Directly selects input channel **D4** (coaxial).

5 Directly selects input channel **D5** (AES/EBU).

7.3   Screen 2
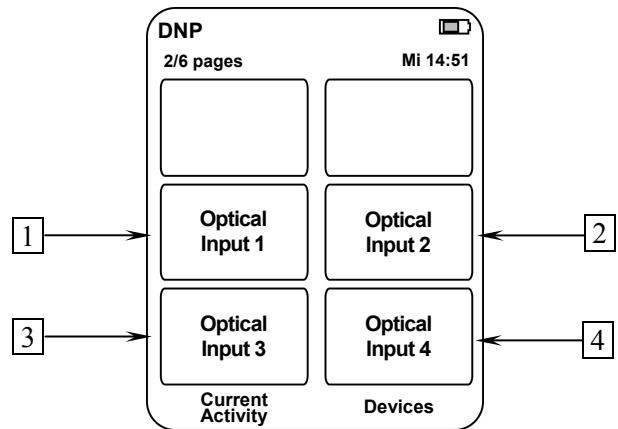
1   Directly selects input channel **D6** (optical).

2   Directly selects input channel **D7** (optical).

3   Directly selects input channel **D8** (optical).

4   Directly selects input channel **D9** (optical).

7.4   Screen 3
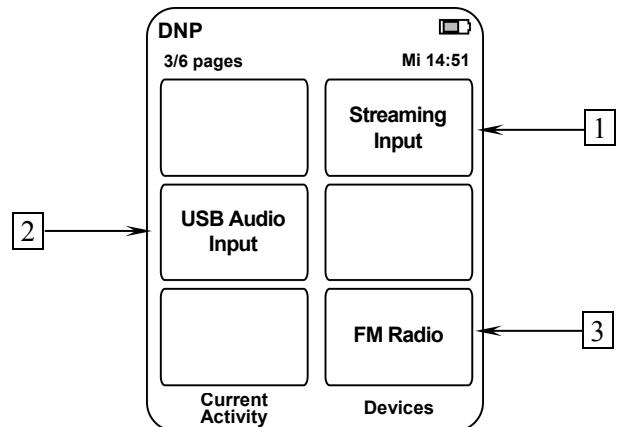
1   Directly selects input channel **NET** (streaming input). This input channel allows you to access internet radio stations, USB devices and UPnP servers (if they are connected).

2   Directly selects input channel **USB** (USB Audio In).

3   Directly selects input channel FM radio.

7.5   Screen 4
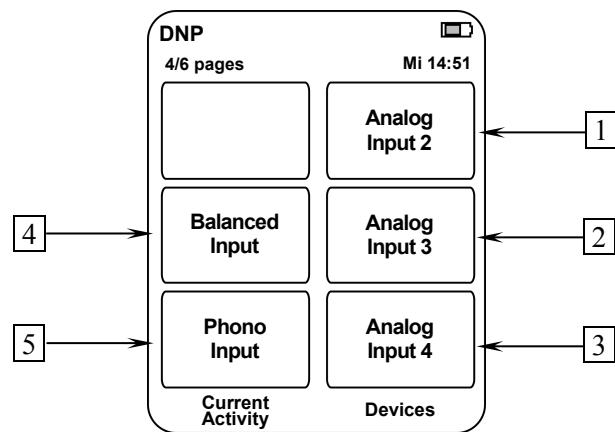
1   Directly selects input channel **AN2**.

2   Directly selects input channel **AN3**.

3   Directly selects input channel **AN4**.

4   Directly selects input channel **AN1** (balanced).

5   Directly selects input channel **AN5** (phono).

7.6 Screen 5
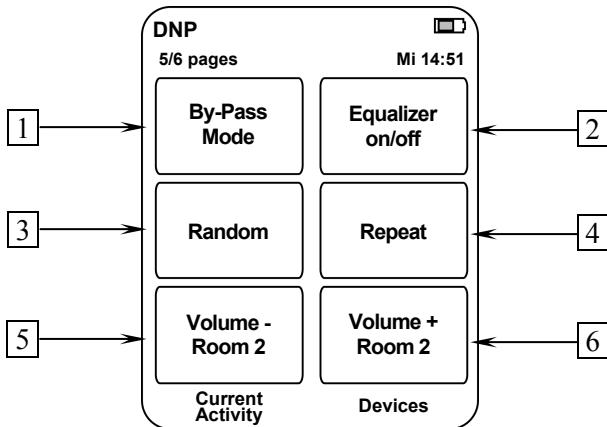
1 The button **By-Pass Mode** has no function in firmware version **01.00.0100** or higher and exists only to be compatible to older firmware versions. Please read section *"8.2.5 - By-Pass channel" on page 45*.

2 **Equalizer on/off** switches on/off the equalizer for the selected channel.

3 **Random** ✕ activates random playback from selected folder (activated only with NET input).

4 **Repeat** activates repeat for titles of a folder **ALL** ⟳ or for the currently playing title **ONE** ⟳ (activated only with NET input).

5 **Volume – Room 2** decreases the volume of preamplifier output **SUB OUT** 7 (see section: *"3 - Overview back panel" on page 10*), only if setup menu item **multiroom** is selected (see section: *"8.4.1 - Loudspeaker" on page 53*).

6 **Volume + Room 2** increases the volume of preamplifier output **SUB OUT** 7 (see section: *"3 - Overview back panel" on page 10*), only if setup menu item **multiroom** is selected (see section: *"8.4.1 - Loudspeaker" on page 53*).

7.7   Screen 6
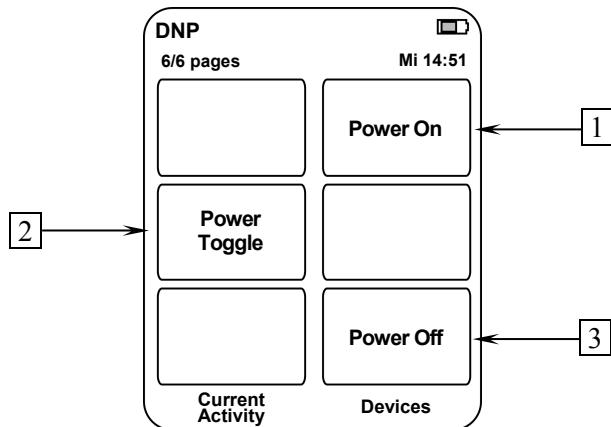
1 If the DNP is in stand-by mode, press key **Power On** to switch the unit on.

2 Use **Power Toggle** to switch on/off the DNP. This key has the same function as the **power** key on the front panel. If the DNP is in stand-by mode, **Power Toggle** switches on the unit. If the DNP is already switched on, **Power Toggle** switches off the unit to stand-by mode.

3 If the DNP is switched on, use key **Power Off** to switch the unit off to stand-by mode.

8 Device setup

To adjust the DNP to your preferences, please use the setup menu. You can control the menu with the keys on the front panel of your DNP or with your remote control. For more comfortable adjustment use our software Audionet RCP. You only need to integrate your DNP to your network (see section: *"8.6.10 - Example for Network setup" on page 68*).

To control your DNP with front panel keys, use **set**, **up** and **down**.

set   holding the key pressed for more than 2 seconds opens the system menu. If you hold again you leave the menu without saving, you cancel. Short push saves/applies a menu item or you switch into marked menu item.

up, **down**   are used to select setup menu items and change.

For easier control you can use the directional pad on your System Remote Control *Harmony One* (see section *"7 - Audionet system remote control" on page 31*).

To setup your DNP very comfortable, please use our software Audionet RCP. You can control everything with mouse and keyboard. You can see everything on your computer display. Especially with equalizer setup it is very useful, because you have a good overview (see also Audionet RCP user's manual).

Note

- Changes will only take effect if you push ⌐OK⌐ on your remote control or short push of **set** key on DNP front panel.

- Within menus with more than one page the fastest way to reach the last entries is to press **up**. To reach, for example, entry **9 of 9**, open the main menu (marker **1 of 9**) and press **up** once instead of pressing **down** several times. Use the same procedure with keys **up** / **down** on the directional pad of the Audionet System Remote Control *Harmony One*.

8.1   Overview device menu

Global Setup	Function
Headphones	Headphone mode
Display	Setup display brightness
Balance (Left/Right)	Setup volume balance left/right
Autostart	Setup auto start mode
By-Pass Channel	Setup channel for By-Pass mode
Power-Off Mode	Setup stand-by mode
Channel Setup	**Setup every channel separately**
Channel Name	Name the input channel (12-digits)
Volume Offset	Setup volume to offset differences between input channels
Digital EQ Setup	Setup the parametric 5-band-equalizers (separately for each channel)
Trigger Out	Setup Trigger Out for control of non Audionet devices (e.g. active subwoofer)
ADC Attenuation	Setup attenuation, to prevent overload of the A/D converter
DC Servo	Switch on/off the DC servo
Bass Manager	
Loudspeaker	Main speaker setup
X-Over	Cross over frequency for high pass filter of main speakers and low pass filter for subwoofer
Sub Volume Offset	Setup subwoofer volume to offset differences
Sub Phase	Setup the subwoofer phase 0° or 180°
Delay Manager	
Speaker Distance	Setup distance between speakers and hearing position
Virtual Sub Offset	Virtual setup of subwoofer position
Network Setup	
Manage Network	Manage main network setup
Connection Type	Select type of connection
DHCP	Switch on/off DHCP
IP Address	Setup IP address for your DNP
IP Mask	Setup subnet mask
Gateway	Setup gateway IP address
DNS	Setup DNS IP address
RCP Port	Setup network port for software Audionet RCP
Wireless Setup	Setup Wi-Fi (SSID, crypt…)
Save User Setting	

Load User Setting	
Device Info	

8.2   Global setup

8.2.1   Headphones

Select the desired setting.

```
┌─────────────────────┐   ┌─────────────────────┐
│  Headphones and     │   │       Title         │
│  Link 2 adjustment  │   │                     │
└─────────────────────┘   └─────────────────────┘

        ┌──────────────────────────────────────────┐
        │ ►            SET HEADPHONES            ◄  │
        │                                          │
        │          Headphones disabled             │
        │          Audionet Link 2 active          │
        │                                          │
        └──────────────────────────────────────────┘
```
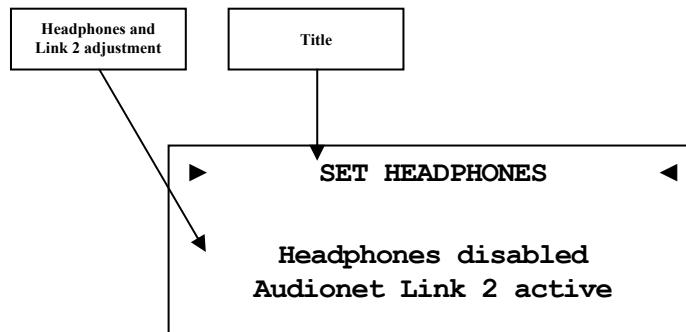
Headphones disabled Audionet Link 2 active	Headphones output **HEADPHONES** $\boxed{15}$ is disabled. The Audionet Link output **Link OUT 2** $\boxed{26}$ is switched on while the DNP is switched on.
Headphones active Audionet Link 2 active	Headphones output **HEADPHONES** $\boxed{15}$ is active. The Audionet Link output **Link OUT 2** $\boxed{26}$ is also active as long the unit is switched on. Use this option if you connect devices to the Audionet Link output **Link OUT 2** $\boxed{26}$ that are supposed to be controlled via Audionet Link independently from the headphones setting.
Headphones active Audionet Link 2 disabled	Headphones output **HEADPHONES** $\boxed{15}$ is active, but the Audionet Link output **Link OUT 2** $\boxed{26}$ is **always** switched off. Use this option if you would like to switch off amplifiers, that are connected to the Audionet Link output **Link OUT 2** $\boxed{26}$, automatically while you are using the headphones output.

☼ Tip

- If you connect your power amplifier to the Audionet Link output **LINK OUT 2** $\boxed{26}$ of the DNP, it will be switched off automatically as soon as you select the headphones option **Headphones active, Audionet Link 2 disabled**. Thus, you are able to enjoy music with your headphones and need not to worry about the amplifier. In case you deactivate the headphones output by selecting the option

Headphones disabled, Audionet Link 2 active, the power amplifier is switched on automatically via Audionet Link, so you playback music through your speakers again.

8.2.2 Display

Adjust the display brightness with the front panel keys or your system remote control *Harmony One*.

```
┌─────────────┐   ┌─────────────┐                    ┌─────────────┐
│ Brightness  │   │    Title    │                    │    Scale    │
│ adjustment  │   │             │                    │             │
└─────────────┘   └─────────────┘                    └─────────────┘

        ┌──────────────────────────────────────────────────┐
        │   ►     SET DISPLAY BRIGHTNESS     ◄              │
        │                                                  │
        │  ─────────────+                                  │
        │  Off    25%    50%    75%   100%                 │
        └──────────────────────────────────────────────────┘
```
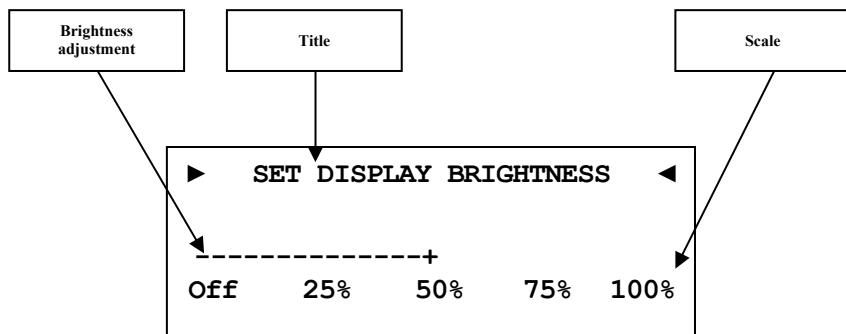
📝 **Note**

- Get to this option at anytime opening the **Global Setup** and navigating to **Display**. Use directional pad or **left** / **right** to select desired brightness.

- It is also possible to set display brightness with the software Audionet RCP.

- Is the brightness set to **Off** the display is only on during setup or volume adjustments. It switches off automatically several seconds after the last user entry.

- The DNP activates the display saver automatically 12 minutes after last user entry/activity.

- During active display saver, the display shows only the number of the selected input channel and current volume level in the form of **An4 -47dB**. The display brightness is always reduced to 25%, and the location of the information text will change randomly every 12 seconds to prevent any burn-in effect of the display.

- The display saver is deactivated, and the display returns to its normal mode as soon as any user entry is detected

- The user cannot switch off the automatic display saver function!

⚠️ **Important**

- **Long-term usage of the display set to maximum brightness (setting 100%) may cause extended signs of wear resulting in a decay of contrast or brightness of individual dots in the display. Do not use the display with a brightness set higher than the factory default of 50% for a longer period of time!**

8.2.3 Balance Left/Right

Adjust the volume balance between left and right channel.

Current balance setting in dB	Title		Balance shifting

```
►        SET  FRONT  BALANCE        ◄


           ◄◄◄◄ + ►►►►
              0.0dB
```
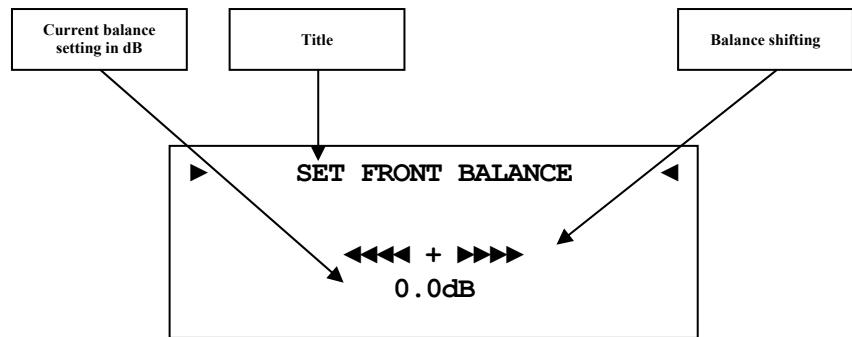
-9dB   maximum volume displacement to left side

0dB   no volume displacement

+9dB   maximum volume displacement to right side

🖉 Note

- In normal operating mode the DNP indicates a balance shift by the corresponding icon in the lower middle of the display. Thus you are able to see whether the balance was shifted at any time (see section: *"6.2.1 - Display" on page 23*).

- A balance shift is carried out internally by attenuating the corresponding channel, i.e. if the balance is shifted to the right, the level of the left channel is attenuated and vice versa.

8.2.4 Autostart

```
┌──────────────┐   ┌──────────────┐
│  Auto start  │   │    Title     │
│  adjustment  │   │              │
└──────────────┘   └──────────────┘
        ╲                  │
         ╲                 ▼
    ┌──────────────────────────────────────────┐
    │  ►        SET AUTO START          ◄       │
    │                                           │
    │       Auto Start is disabled              │
    │                                           │
    └──────────────────────────────────────────┘
```
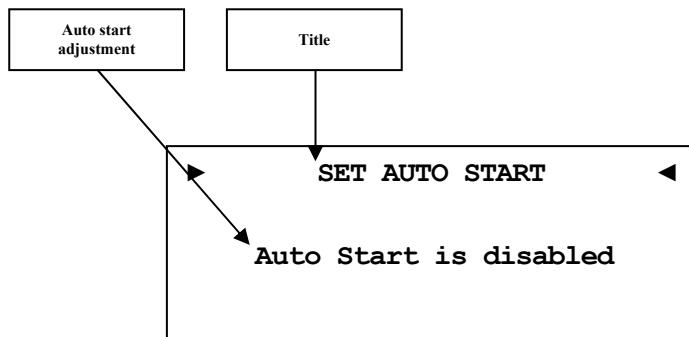
disabled   The Auto Start function is disabled. After switching on the mains switch 1 on the back panel, the DNP enters the stand-by mode. You have to use the **power** key on the front panel or **Power On** or **Power Toggle** keys on the Audionet System Remote Control *Harmony One* to switch on the unit into normal operating mode[*].

active   The Auto Start function is active. As soon as you connect the DNP to mains (i.e. use the mains switch 1 on the back panel) the unit starts up automatically to normal operating mode. Use this setting for timer controlled operations.

---

[*] or switched on/off by Activities on the Audionet System Remote Control; see separate user's manual *Harmony One*

8.2.5 By-Pass channel

Select the analog input channel you want to use for By-Pass mode.

```
┌──────────────────┐   ┌──────────────────┐
│ By-Pass channel  │   │      Title       │
│    selection     │   │                  │
└──────────────────┘   └──────────────────┘
        │                      │
        │      ┌───────────────────────────────────────┐
        │      │  ►    SET INPUT CHANNEL        ◄       │
        └──────│  ►    FOR BY-PASS MODE:        ◄       │
               │                                       │
               │         By-Pass mode disabled         │
               └───────────────────────────────────────┘
```
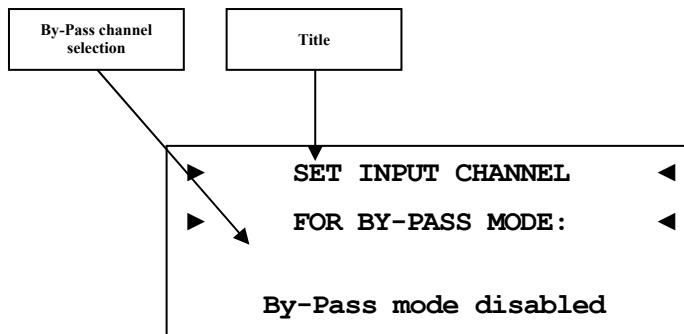
The By-Pass Mode was primarily intended to integrate the overwhelming sound quality of the DNP into an existing home cinema setup or to expand an existing excellent stereophonic system based on the DNP to a complete home cinema setup without missing out on the qualities of the DNP. To realize this kind of setup, please proceed as follows:

Connect your home cinema preamplifier according to its user's manual.

1. Connect the output for the front channels Left and Right not to the power amplifier but to one of the free inputs of the DNP.

2. Use menu item By-Pass channel of the setup menu of the DNP to select the input channel for By-Pass Mode you connected the outputs Left and Right of the home cinema preamplifier to.

3. Connect now all high quality 2-channel sources to the remaining inputs of the DNP.

4. Connect your DVD player to your home cinema preamplifier as usual.

Use the DNP to listen to high quality 2-channel sources and streaming audio. If you would like to use your home cinema system activate the By-Pass Mode of the DNP and use your home cinema preamplifier as usual.

![icon] **Important**

- **Please read the complete section about the special function By-Pass Mode first before you use this function in order to prevent incorrect usage and possible damage to your audio system and/or hearing.**

- **By factory default no input channel is selected for the By-Pass Mode. Use this menu option to select desired input channel for the By-Pass Mode.**

When the By-Pass Mode is active the volume control of the DNP is bypassed. The DNP passes through the input signal to the outputs and amplifiers with its **full** level.

Please use this setup option to select which of the five analog input channels of the DNP is fed through to the outputs if By-Pass Mode is active.

👆 **Important**

- **First, select the input channel used for By-Pass Mode, before you activate the By-Pass Mode for the first time.**

The special function By-Pass Mode of your DNP is activated automatically if you switch to the input channel selected for By-Pass Mode in the setup option "**Set input channel for By-Pass Mode**". The signal at the input channel selected for By-Pass Mode operations is passed through the DNP at a level of 0 dB (i.e. no change in volume level) to the outputs and your amplifiers.
As soon as you select a different input channel, the special function By-Pass Mode is switched off automatically.

👆 **Important**

- **Please check the correct connection and setup before you use the By-Pass Mode for the first time. The input signal will be passed through to the outputs at full level!**

As soon as the By-Pass Mode is activated, the DNP will ignore all control commands coming from the keys on the front panel or remote control (exceptions see below)!

👆 **Important**

There are only two possibilities to disable the By-Pass Mode:

1. Select a different input channel. The DNP switches to the newly selected input channel, resetting the volume to its prior level.

2. Push the **power** key on the front panel or the buttons | **Power Toggle** | or | **Power Off** | on the Audionet System Remote Control. The DNP switches off to stand-by mode.

✏️ **Note**

- If you leave the By-Pass Mode by pushing the **power** key on the front panel, this mode will be saved, i.e. if you switch on the DNP again, the unit will switch to the last saved input channel selection and thus into the By-Pass Mode.

- The analog input | 5 | ("Phono Input") is not available for selection of the By-Pass Mode.

8.2.6   Power-off mode
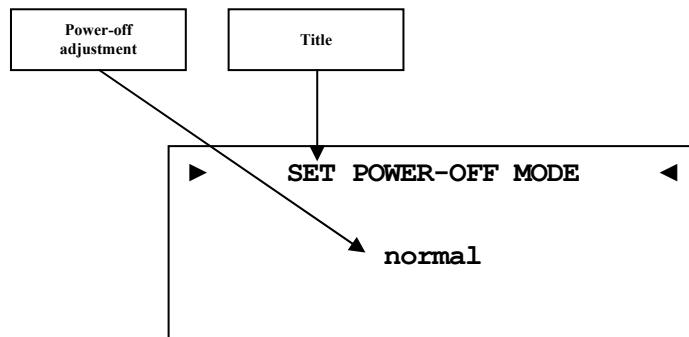
The DNP differentiates between two power-off modes. Firstly the **normal** power-off mode and secondly the **Quick Start** mode.

The factory default setup is the **normal** mode, because of low power consumption in stand-by (less than 1W). If you use normal power mode, you cannot switch on with the software Audionet RCP.

With the **Quick Start** mode selected, the network interface remains activated, and the DNP start up process is accelerated, because the network interface must not boot up. Furthermore you can use software Audionet RCP to start up. If you select **Quick Start** mode the power consumption is increased. Check out *"9.7 - Specifications" on page 83*.

8.3 Channel setup

All settings in menu item **Channel Setup** apply to the currently selected input channel.

8.3.1 Channel name
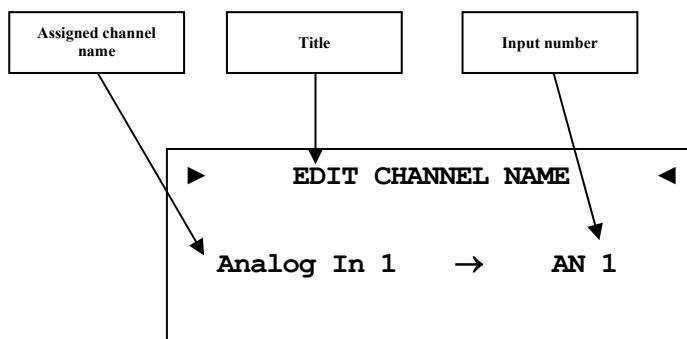
You can assign a fully user-definable name up to 12 characters in length to each of the seventeen input channels. The display shows the number of the currently selected input channel and the assigned channel name. The cursor marks the character you now may alter.

🖉 Note

- For easier adjustment of the channel name use the software Audionet RCP (see user's manual RCP).

8.3.2 Volume offset
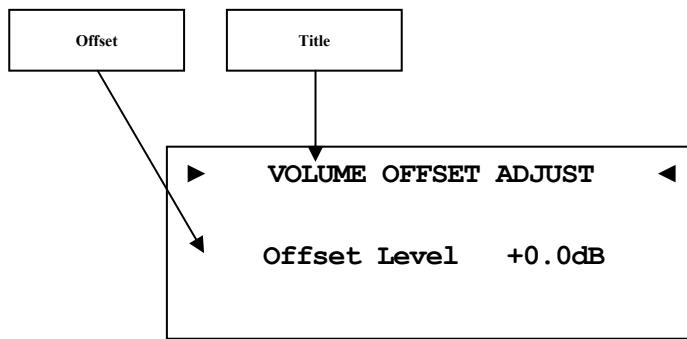
To offset differences between input devices, you can adjust the volume level for each channel in range from -9dB to +9dB.

8.3.3 Digital equalizer setup

The digital EQ is a parametric 5 band equalizer with separated adjustment for left and right channel, as well as subwoofer 1 and 2.

```
┌──────────┐   ┌──────────────┐   ┌──────────┐   ┌──────────────┐
│  Marker  │   │   Channel    │   │  Title   │   │ Band selection│
│          │   │  L/R, Sub 1, 2│   │          │   │   EQ 1-5     │
└──────────┘   └──────────────┘   └──────────┘   └──────────────┘

        ┌────────────────────────────────────────────┐
        │  ►      SET DIGITAL EQUALIZER        ◄      │
        │  ► Left ◄                    EQ 1            │
        │    Freq: 120 HZ              Q: 8.00         │
        │    Gain: 3.0 dB             Peak EQ          │
        └────────────────────────────────────────────┘

┌──────────┐   ┌──────────┐   ┌──────────────┐   ┌──────────────┐
│Frequency │   │   Gain   │   │ Filter type  │   │Quality factor│
└──────────┘   └──────────┘   └──────────────┘   └──────────────┘
```
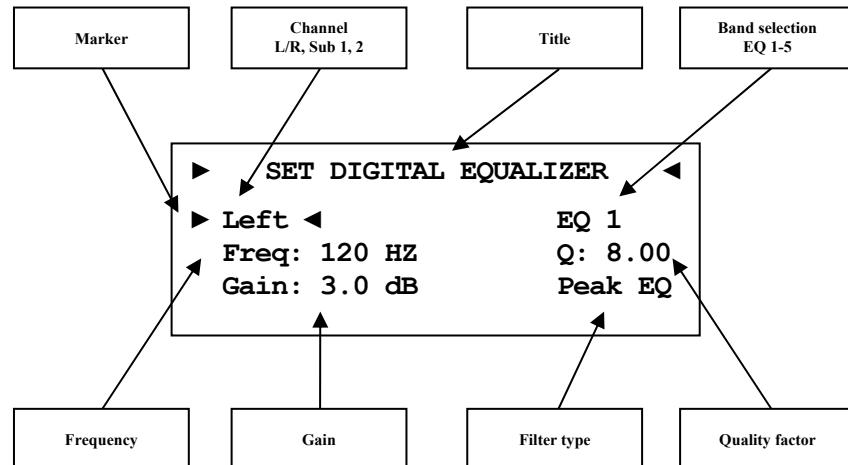
You can navigate through the menu of the digital EQ with the directional pad on your system remote control. With **up** / **down** keys you choose the parameter for adjustment, **left** / **right** changes the selected parameter. If you enter the digital equalizer menu item, the first selected parameter is **Left**. Here you select the speaker channel you want to adjust [**Left, Right, Subwoofer 1, Subwoofer 2**].
Selection of subwoofer corresponds to the adjustment in menu item **Bass Manager** (see section: *"8.4.1 - Loudspeaker" on page 53*).

```
┌────────────────────────────────────────────┐
│  ►      SET DIGITAL EQUALIZER        ◄      │
│    Left                      ►EQ 1   ◄      │
│    Freq: 120 HZ               Q: 1.00       │
│    Gain: 3.0 dB              Hi Shelf       │
└────────────────────────────────────────────┘
```
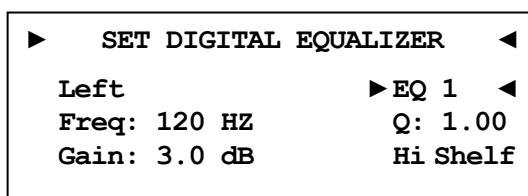
Secondly you select the band [**EQ 1 – EQ 5**]. For each band you can adjust the following parameter:

Freq   center- respectively cutoff frequency (depends on filter)

Q   filter quality (depends on filter)

Gain   gain (from -12 dB to +6 dB)

Filter type   you can choose between seven different filter types

Filter type	Short description
Peak EQ	band-pass filter
Hi Shelf	treble control
Lo Shelf	bass control
LP 2nd	low pass filter 2nd order
HP 2nd	high pass filter 2nd order
LP 1st	low pass filter 1st order
HP 1st	high pass filter 1st order

🖉 Note

- For easier adjustment of equalizer parameters use the software Audionet RCP (see user's manual RCP).

8.3.4 Trigger out
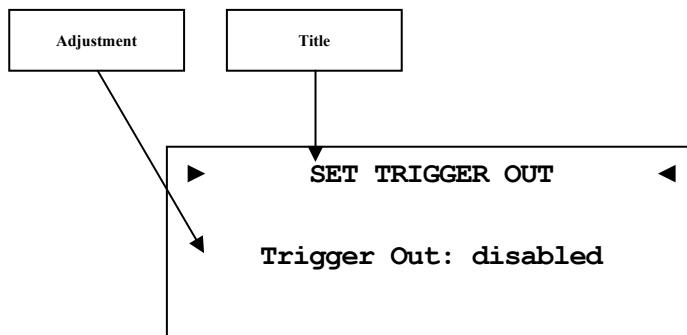
The trigger out connection could be used to remotely switch on/off non Audionet devices. By factory default the voltage is adjusted to 12V DC. If necessary the output voltage can be re-configured to 5V DC. Changing the voltage must be done by authorized personnel only. Ask your local dealer for support.

8.3.5 ADC attenuation

```
┌─────────────────┐   ┌──────────────┐
│   Attenuation   │   │    Title     │
│ for AD converters│   │              │
└─────────────────┘   └──────────────┘

        ┌──────────────────────────────────────────┐
        │  ►      SET ADC ATTENUATION        ◄      │
        │                                          │
        │       Analog In Level: 0dB               │
        │                                          │
        └──────────────────────────────────────────┘
```
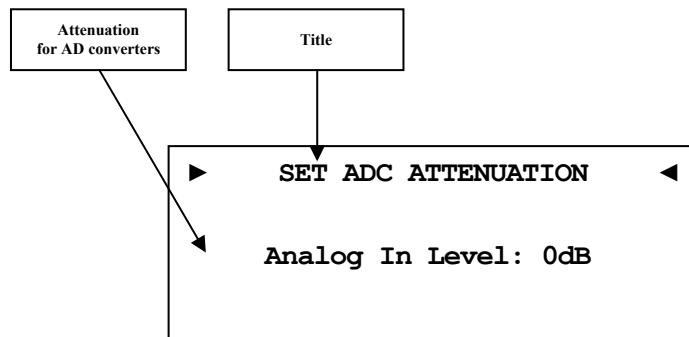
0 dB	The analog audio signal is directly sampled.
-6 dB	If the analog audio level should be too high and distortions appear you can switch 6dB attenuation previous the analog/digital converter.

📝 Note

- This adjustment is without any effect, if the analog input is in *"Pure Analog"* mode.

Pure Analog or **A/D Converted** is displayed in the upper right corner on the front panel display.

Pure Analog stands for direct signal path through the DNP. The only manipulation to the signal is the volume control.

A/D Converted is displayed, if the analog audio signal is sampled for digital manipulation. All equalizer adjustments are done digitally.

8.3.6 DC Servo

```
┌──────────────┐   ┌──────────────┐
│   DC Servo   │   │    Title     │
└──────────────┘   └──────────────┘

        ┌─────────────────────────────────────┐
        │  ►        SET DC SERVO         ◄     │
        │                                     │
        │        DC Servo: disabled           │
        │                                     │
        └─────────────────────────────────────┘
```
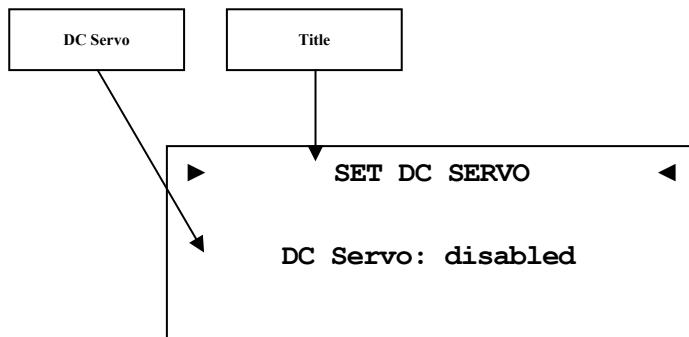
disabled   The DC Servo is disabled for the currently selected input channel.

active   The DC Servo is activated for the currently selected input channel.

Activate the DC Servo if the analog source connected to the DNP holds a high DC component in its output signal. The DC Servo eliminates the DC component. The currently selected input channel is now AC-coupled. Usually the DC Servo may be disabled. This adjustment is only available with analog input channel.

📝 Note

- For an active DC Servo the display shows a small **DC** symbol next to the input channel (see *"6.2.1.1 - Analog input channel" on page 23*).

- The DC Servo should only be switched on if there really is a DC component in the input signal. Otherwise it will diminish the audio signal quality of the DNP.

8.4   Bass manager

8.4.1 Loudspeaker

Choose your system configuration according to your setup.

```
┌──────────────┐      ┌──────────────┐              ┌──────────────────┐
│   Speaker    │      │    Title     │              │ Filter adjustment│
│  adjustment  │      │              │              │  front speaker   │
└──────────────┘      └──────────────┘              └──────────────────┘

        ┌─────────────────────────────────────────────────┐
        │  ►        SET  LOUDSPEAKERS           ◄          │
        │                                                 │
        │  ►  Config     :    2.0              ◄          │
        │     Front Spk  :    Full-Range                  │
        └─────────────────────────────────────────────────┘
```
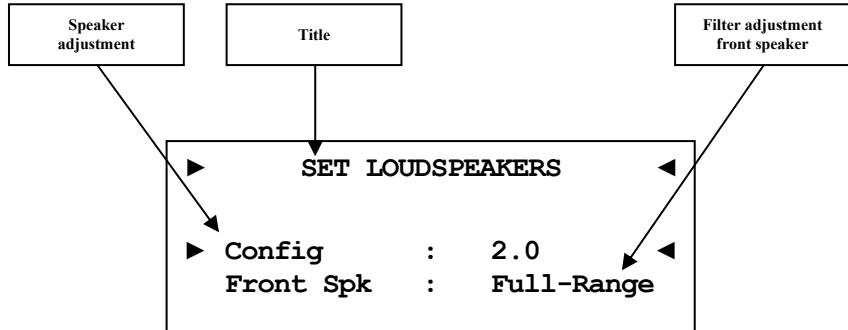
Config: Setup your speaker configuration.

2.0 no Sub   Subwoofer output is disabled.

2.1   Subwoofer output is activated and ready to support one
                   mono subwoofer.

2.2 mono   Subwoofer output is activated and ready to support two
                   mono subwoofer.

2.2 stereo   Subwoofer output is activated and ready to support stereo
                   subwoofers (L/R).

Multiroom   The subwoofer output is switched to multiroom mode
                   and a separate volume control is activated too (see sec-
                   tion *"7.6 - Screen 5" on page 37*). Then the cinch out-
                   puts of **SUB** correspond to left (**Sub 1**) and right (**Sub 2**)
                   channel.

Front Spk: Adjust your front speaker configuration

Full-Range: the speakers reproduce the full frequency range. Select
                   this option, if your speakers are able to reproduce bass
                   below the crossover frequency. If you use this setup with
                   a subwoofer, your system could create a stronger bass
                   foundation (see section: *"8.4.2 - X-Over" on page 54*).

HP-Filtered: Bass below the cross over frequency is redirected to
                   subwoofer output channel. Please use this option for
                   small speakers, which are not capable of reproducing fre-
                   quencies below the cross over frequency.

8.4.2 X-Over

Crossover frequency	Title		High pass filter quality (Q)

```
►           SET X-OVER              ◄


► Frequency    :    102 Hz     ◄
  High Pass Q :    0.71
```
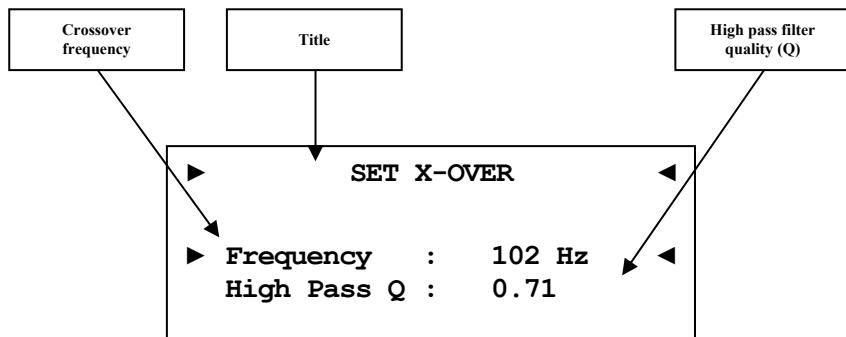
Now you have to adjust the cross over frequency for the speakers. The frequency defines the point of operation for the corresponding filters of your loudspeaker setup. Adjust the Q factor of the current high pass filter. The default setting is 0.71 and should only be altered by experts.

Note

- You will see an extra EQ-curve in the equalizer window for front speakers and subwoofer in your Audionet RCP software.

8.4.3   Subwoofer volume offset

Volume subwoofer 1	Title		Volume subwoofer 2

```
►        SET SUBWOOFER LEVEL       ◄


► Subwoofer 1 :     0.0 dB      ◄
  Subwoofer 2 :     0.0 dB
```
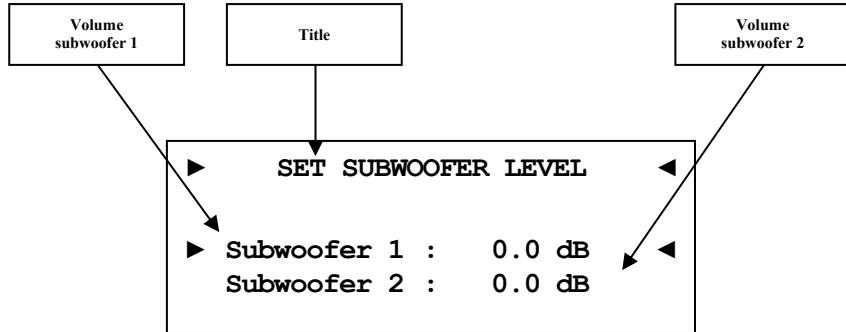
Use this adjustment to offset volume differences between subwoofer and main speakers. The subwoofer channels may be adjusted separately.

8.4.4   Subwoofer phase

You can select the phase of your subwoofer.

```
┌──────────┐      ┌──────────┐                      ┌──────────┐
│  Phase   │      │  Title   │                      │  Phase   │
│subwoofer 1│     └──────────┘                      │subwoofer 2│
└──────────┘                                        └──────────┘

        ┌──────────────────────────────────────────────┐
        │   ►        SET  SUBWOOFER  PHASE        ◄      │
        │                                                │
        │  ► Subwoofer 1 :    normal        ◄            │
        │    Subwoofer 2 :    normal                     │
        └──────────────────────────────────────────────┘
```
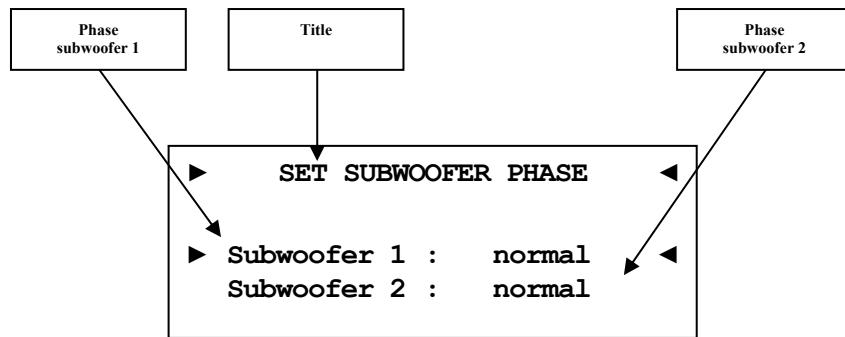
normal   0° phase shift.
inverted   180° phase shift.

✏️   **Note**

- To make a precision subwoofer setup you can use the virtual offset (see section: *"8.5.2 - Virtual subwoofer offset" on page 56*).

- For 0° phase shift: The subwoofer is positioned in same direction as the main speaker. Sound propagation is the same with each speaker.

- For 180° phase shift: The subwoofer is positioned behind the listening position and the chassis membrane is orientated inverse to the main speaker

8.5 Delay manager

8.5.1 Speaker distance

```
┌─────────────────┐   ┌──────────┐                    ┌─────────────────┐
│ Speaker distance│   │  Title   │                    │ Speaker distance│
│      left       │   │          │                    │      right      │
└─────────────────┘   └──────────┘                    └─────────────────┘
```

```
  ►      SET  SPEAKER  DISTANCES      ◄
  ► Left            :     0 cm        ◄
    Right           :     0 cm

                   1 of 4
```
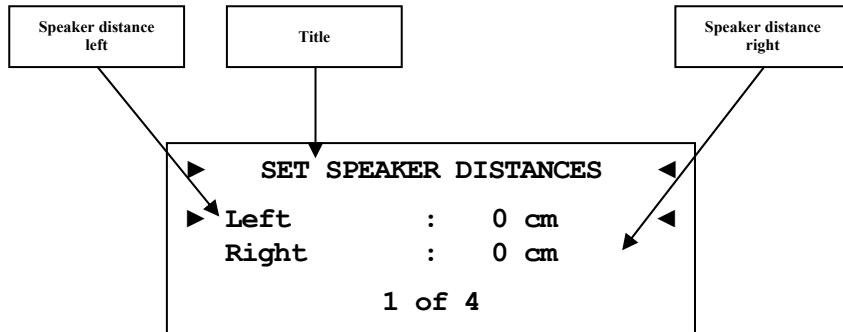
Use this menu to enter the distances from your speakers to your listening
position. The distance ranges from 0 to 700 cm in steps of 5 cm. Accord-
ing to the entered distances, the DNP calculates the necessary delays of
each channel to ensure that all signals from all speakers arrive at the same
time at the listening position.

✎ **Note**

• You can setup the subwoofer distance as well.

8.5.2 Virtual subwoofer offset

```
┌─────────────┐   ┌──────────┐              ┌─────────────┐
│   Offset    │   │  Title   │              │   Offset    │
│ subwoofer 1 │   │          │              │ subwoofer 2 │
└─────────────┘   └──────────┘              └─────────────┘
```

```
  ►      SET  VIRTUAL  SUB  OFFSET      ◄


  ► Subwoofer 1 :      +0 cm           ◄
    Subwoofer 2 :      +0 cm
```
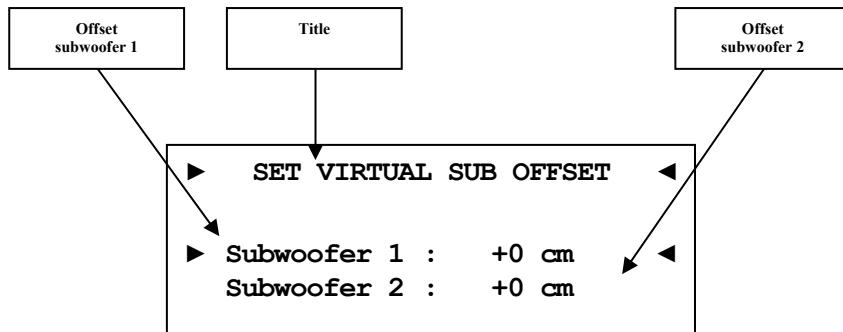
This option virtually moves the subwoofer relative to the listening posi-
tion (= adjusting the phase of the subwoofer). Use **positive** values, if you
want to **delay** the signal from the subwoofer relative to all other channels.
Use **negative** values, if the signal from the subwoofer should arrive **ear-
lier** than the signals from all other speakers.

8.6 Network setup

| Marker | Network adjust-ment | Marker position | Key icon |

```
 ▶  Network Profile        ◀   ⌐
    DHCP                        ⌐
    IP Address                  ⌐
                 1 of 8
```
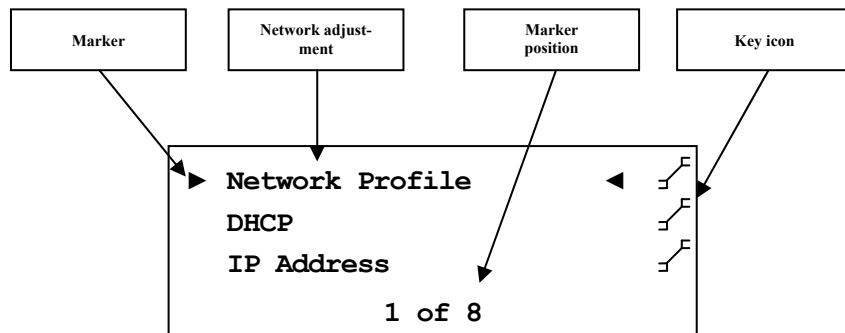
Your DNP is set to receive DHCP[*] information from your network. If you connect your device to a wired network, it should be ready to use. For use of fixed IP address you may contact your network administrator to get the information you need to adjust. Use your system remote control *Harmony One* to adjust your IP and Wi-Fi information. An adjustment with the front panel keys is possible. To set numbers for an IP address you can use the numeric key pad. For letters you can use the numeric key pad as well (SMS principle) or you navigate with the directional key pad. With **up** / **down** you change the letter and with **left** / **right** you move the cursor. Confirm your input with **OK** key. An example for network configuration can be found at the end of the section (see section: *"8.6.10 - Example for Network setup" on page 68*). Most network terms are defined in glossary (see section: *"9.1 - Glossary" on page 74*).

🖉 Note

- Wireless setup can also be done with the software Audionet RCP. For the time of configuration you need to connect your DNP to the wired network. Later you may disconnect the cable for using a Wi-Fi connection.

- Every block of an address consists of three numbers. Sometimes the triplets are not written down in full length. If that is the case with an address you need for your network setup, then the leading zeros have been left out. You need to complete these addresses for use with your DNP referring to the following example: e.g. 0.1.10.100 has to be completed to 000.001.010.100.

---

[*]see section: *"9.1 - Glossary" on page 76*

8.6.1 Manage Network

```
┌─────────────┐   ┌─────────────┐                    ┌─────────────┐
│Save and Apply│   │    Title    │                    │   Driver    │
│  Settings   │   │             │                    │   Restart   │
└─────────────┘   └─────────────┘                    └─────────────┘
        │                │                                  │
        │   ┌────────────┼──────────────────────────────┐  │
        │   │            ▼                               │  │
        │   │  ►        Manage Network            ◄ ◄────┘
        │   │      Restart Network Driver            │
        └───┼──► ► Save & Apply Settings        ◄    │
            │      Load Factory Defaults             │
            │         ▲                              │
   ┌────────┴──┐      │                              │
   │  Factory  ├──────┘                              │
   │ Defaults  │                                     │
   └───────────┘─────────────────────────────────────┘
```
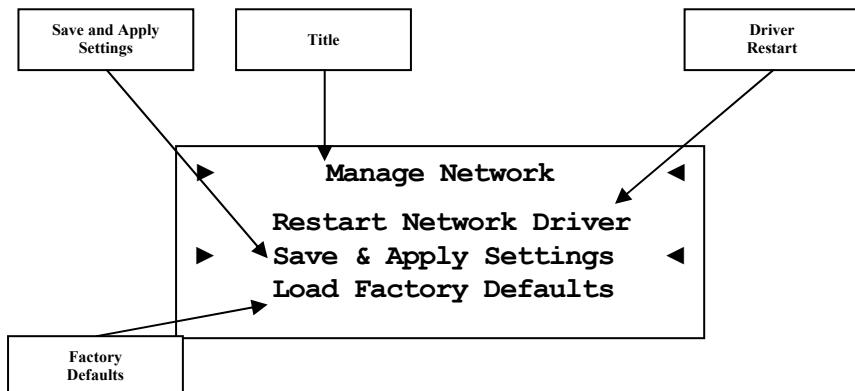
In this menu you find the basic setup for managing the network prefer-
ences of your DNP. The following explains the menu in detail.

8.6.1.1 Restart Network Driver

Sometimes it might be necessary to restart the network driver of the DNP.
With this function you can restart the driver without having to switch the
device off completely. The driver restarts with its current settings.
Select this menu entry and confirm your selection with **OK** . The DNP
issues the following message:
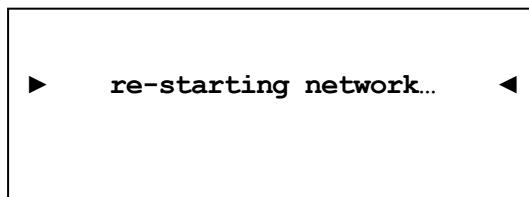
```
┌──────────────────────────────────────────┐
│                                          │
│                                          │
│   ►      re-starting network…      ◄     │
│                                          │
│                                          │
└──────────────────────────────────────────┘
```

It takes about 30 seconds for the driver to be restarted. Then your Audio-
net device will be available in the network again.

8.6.1.2 Save & Apply Settings

This entry has to be selected every time you finished network configura-
tion and want to save and apply the new values. Made changes to your
network setup will be dismissed without saving and applying them unless
you select this particular entry.
Select this menu entry and confirm your selection with **OK** . It takes
about 30 seconds for the driver to be restarted. Then your Audionet de-
vice will be available in the network again.

📝 Note

* You have to execute this entry if you want to save and apply your
  made changes. Otherwise your configuration will be dismissed!

8.6.1.3 Load Factory Defaults

With this function you can restore the factory settings of your DNP's network driver. The DNP is factory-set to wired ethernet connection with DHCP activated. This way, if you connect your device to a wired network, it should be ready to use.

Select this menu entry and confirm your selection with $\boxed{\textbf{OK}}$. The factory default settings are now loaded.

After successfully loading the factory defaults the cursor automatically marks the menu entry Save & Apply Settings. This entry has to be executed as described in section *"8.6.1.2 - Save & Apply Settings" on page 58* to apply the factory defaults.

✏ **Note**

- You have to execute menu entry **Save and Apply Settings** if you want to save and apply the factory default settings. Otherwise this configuration will be dismissed!

- If you accidentally selected this entry and the factory default settings are loaded, you are able to exit the menu with the key $\boxed{\textbf{Exit}}$ of your Audionet System Remote Control *Harmony One* or by pressing **set** longer than 2 seconds. This way the settings accidentally loaded will not be activated and your former settings will remain.

8.6.2 Connection Type

```
┌─────────────────┐   ┌─────────────────┐
│ Connection Type │   │      title      │
└─────────────────┘   └─────────────────┘

┌──────────────────────────────────────────────┐
│  ►       SET  CONNECTION  TYPE        ◄       │
│                                              │
│            Wireless (WiFi) 802.11            │
│                                              │
│                                              │
└──────────────────────────────────────────────┘
```
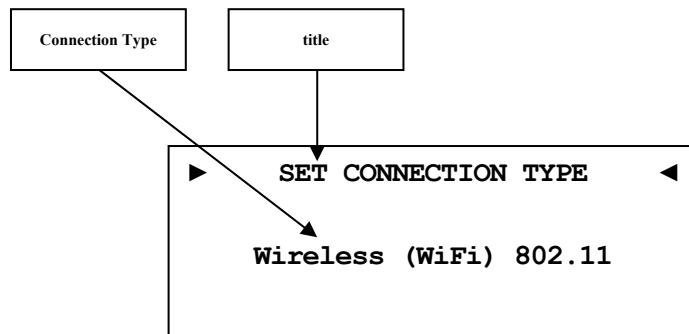
Wired Ethernet   Factory setting. Your DNP connects to a network via a connected network cable.

Wireless (WiFi)   Your DNP establishes a wireless connection via the included WLAN Antenna.

Only if **Wireless (WiFi) 802.11** is selected, the menu *"8.6.9 - Wireless setup" on page 63* is available.

8.6.3 DHCP

```
┌──────────────────┐   ┌──────────────────┐
│ DHCP adjustment  │   │      Title       │
└──────────────────┘   └──────────────────┘

        ┌──────────────────────────────────────────┐
        │  ►         SET DHCP MODE         ◄        │
        │                                          │
        │       DHCP     :     active              │
        │                                          │
        └──────────────────────────────────────────┘
```
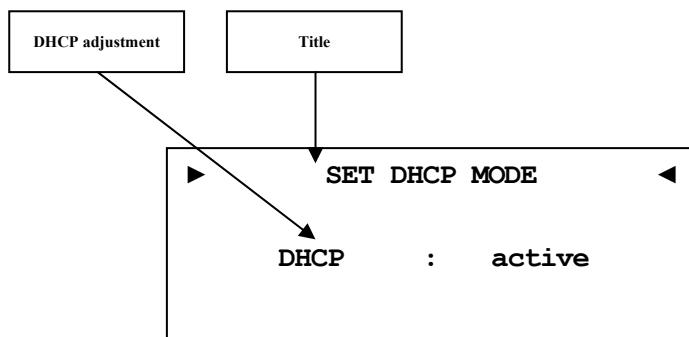
disabled   DHCP client mode is disabled

active   Your DNP will try to get information via DHCP.

If the IP address is received from DHCP server, the following menu items must not be setup. Menu item IP address, IP mask, gateway and DNS are without effect and they are overwritten by DHCP information.

⚙ **Tip**

- Use directional pad on your System Remote Control *Harmony One*. Confirm everything with ⬛**OK** key.

8.6.4 IP Address

```
┌──────────────────┐   ┌──────────────────┐
│   IP Address     │   │      Title       │
└──────────────────┘   └──────────────────┘

        ┌──────────────────────────────────────────┐
        │  ►         SET IP ADDRESS        ◄        │
        │                                          │
        │          192.168.178.222                 │
        │                                          │
        └──────────────────────────────────────────┘
```
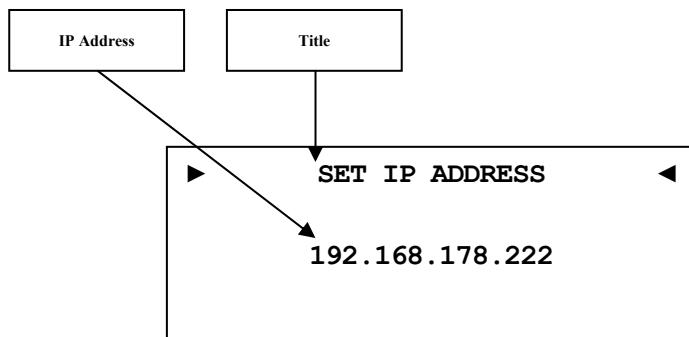
Setup your chosen IP address.

The used address type is IPv4 (e.g. 192.168.178.222).

⚙ **Tip**

- Use numeric key pad on your System Remote Control *Harmony One*. Confirm everything with ⬛**OK** key.

8.6.5 IP Mask

```
┌──────────────┐   ┌──────────────┐
│ Subnet mask  │   │    Title     │
└──────────────┘   └──────────────┘

        ┌───────────────────────────────────────┐
        │  ►        SET IP MASK         ◄        │
        │                                        │
        │           255.255.255.000              │
        │                                        │
        │                                        │
        └───────────────────────────────────────┘
```
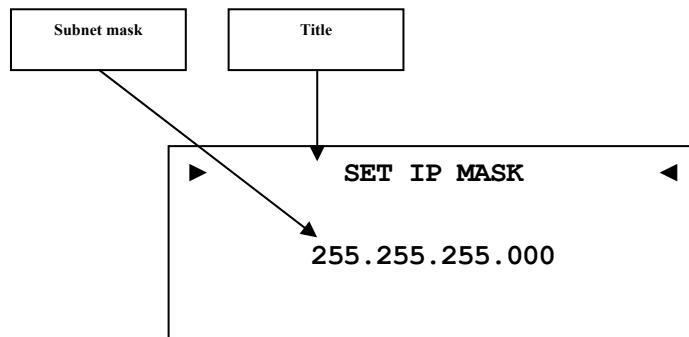
Setup your used subnet mask (e.g. 255.255.255.000).

☼ Tip

- Use numeric key pad on your System Remote Control *Harmony One*. Confirm everything with OK key.

8.6.6 Gateway

```
┌──────────────┐   ┌──────────────┐
│ Gateway-IP-  │   │    Title     │
│   Address    │   └──────────────┘
└──────────────┘

        ┌───────────────────────────────────────┐
        │  ►     SET GATEWAY ADDRESS     ◄       │
        │                                        │
        │           192.168.178.001              │
        │                                        │
        │                                        │
        └───────────────────────────────────────┘
```
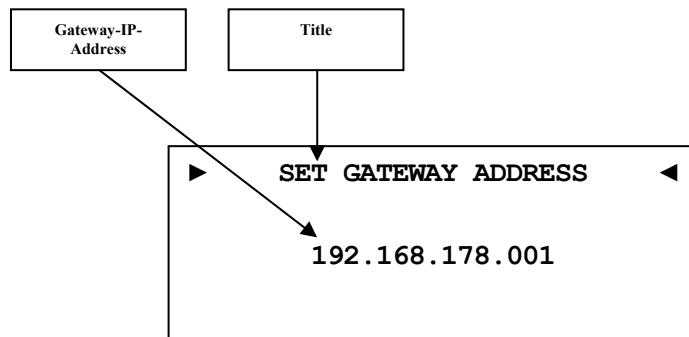
Setup your gateway IP address (e.g. 192.168.178.001).

☼ Tip

- Use numeric key pad on your System Remote Control *Harmony One*. Confirm everything with OK key.

- The gateway address is mostly the same as the router IP address.

8.6.7   DNS

```
┌──────────────┐   ┌──────────────┐
│ DNS IP address│   │    Title     │
└──────────────┘   └──────────────┘

┌─────────────────────────────────────────┐
│  ►         SET DNS ADDRESS         ◄     │
│                                          │
│           192.168.178.001                │
│                                          │
└─────────────────────────────────────────┘
```
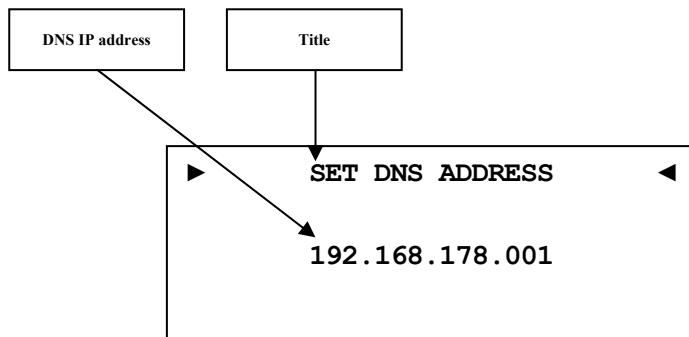
Setup your DNS IP address (e.g. 192.168.178.001).

⚙ **Tip**

- Use numeric key pad on your System Remote Control *Harmony One*. Confirm everything with **OK** key.

- The DNS IP address is mostly the same as the router IP address.

8.6.8   RCP port

```
┌──────────────┐   ┌──────────────┐
│RCP port adjust-│  │    Title     │
│     ment      │   └──────────────┘
└──────────────┘

┌─────────────────────────────────────────┐
│  ►          SET RCP PORT           ◄     │
│                                          │
│          RCP PORT: 54321                 │
│                                          │
└─────────────────────────────────────────┘
```
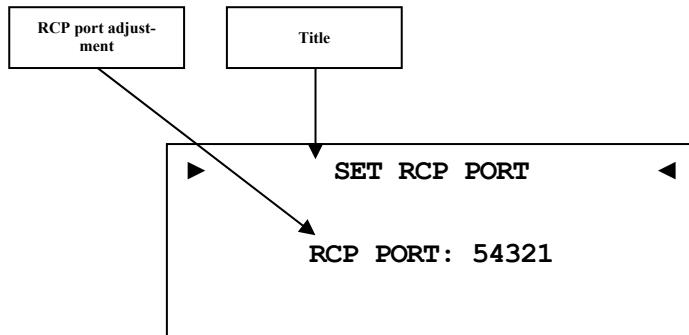
The communication port for software Audionet RCP and Android App aMM is set up here. This adjustment should only be done by professional users. Setup a value between 50000 to 59999. The default value has to be changed only if you have network communication problems. Ask your network administrator for support.

⚙ **Tip**

- Use directional pad **left** / **right** on your System Remote Control *Harmony One*. Confirm everything with **OK** key.

8.6.9 Wireless setup

```
┌──────────┐   ┌──────────┐   ┌──────────┐   ┌──────────┐
│  Marker  │   │   Wi-Fi  │   │  Marker  │   │ Key icon │
│          │   │ adjustment│  │ position │   │          │
└──────────┘   └──────────┘   └──────────┘   └──────────┘

   ►  SSID                            ◄   ⌐
      Wireless Security                    ⌐
      WPA Cipher Type                      ⌐
               1 of 10
```
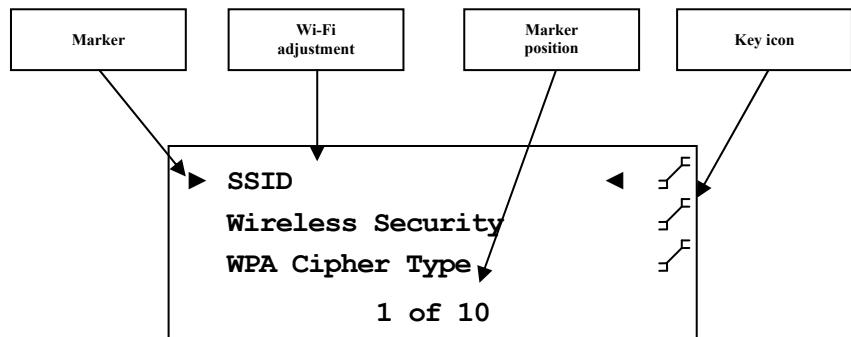
All Wi-Fi adjustment has to be done manually.

You can find all your Wi-Fi adjustments in your router or access point. If you have no access to this information ask your network administrator.

✎ Note

- You can use software Audionet RCP to adjust Wi-Fi settings. A wired network connection is necessary. This connection can be removed after setup (see user's manual Audionet RCP).

8.6.9.1 SSID

Enter your Wi-Fi name. Attention on case sensitive input.
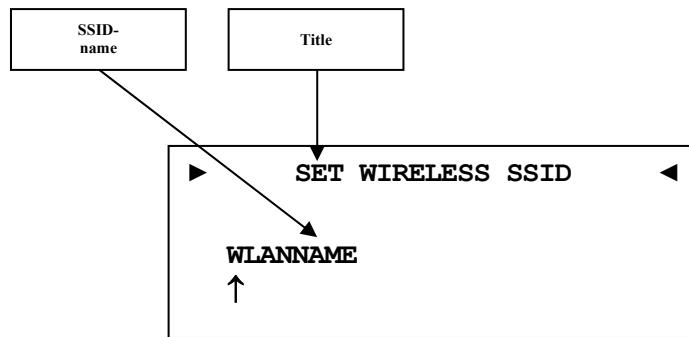
```
┌──────────┐   ┌──────────┐
│  SSID-   │   │   Title  │
│   name   │   │          │
└──────────┘   └──────────┘

   ►        SET WIRELESS SSID        ◄

      WLANNAME
      ↑
```

✎ Note

- Use numeric key pad on your System Remote Control *Harmony One* for letter input (SMS principle). You have to switch the cursor position forward manually. Use the **left** / **right** keys on directional key pad. Confirm the adjustment with the **OK** key.

- Use key **Cancel** 9 to delete the selected character. In this case the key **Cancel** 9 does not execute a step backward. Press **Exit** to leave the menu without saving.

8.6.9.2 Wireless security

Select your Wi-Fi crypt type. Take this information from your router.

```
┌──────────────┐   ┌──────────────┐
│    Crypt     │   │    Title     │
│  adjustment  │   │              │
└──────────────┘   └──────────────┘

        ┌─────────────────────────────────────┐
        │  ►    SET SECURITY MODE      ◄       │
        │                                      │
        │           WPA2PSK                    │
        │                                      │
        └─────────────────────────────────────┘
```
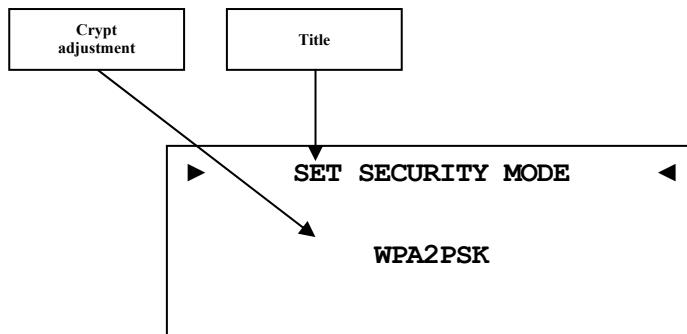
None   no crypt type selected (not recommended).

WEP   Wired Equivalent Privacy, out-dated and unsecure secu-
              rity standard (not recommended).

WPAPSK   Wi-Fi Protected Access Pre-shared key was an transi-
              tional standard to replace WEP until the new WPA2 was
              defined (not recommended).

WPA2PSK   Wi-Fi Protected Access 2 Pre-shared key is the regular
              standard for Wi-Fi security (recommended).

✎ Note

- Use directional pad **left** / **right** on your System Remote Control *Har-mony One*. Confirm everything with OK key.

- Wikipedia links to all security terms can be found in section *"9.2.1 - Wireless security" on page 76*.

✦ Tip

- In the preferences of some new routers / access points the used WPA2PSK crypt type might be called "WPA2PSK – Personal" or "WPA2 – Personal".

8.6.9.3 WPA pass phrase

Enter your WPA network key. Attention on case sensitive input. This phrase is only active with **WPAPSK** or **WPA2PSK**.
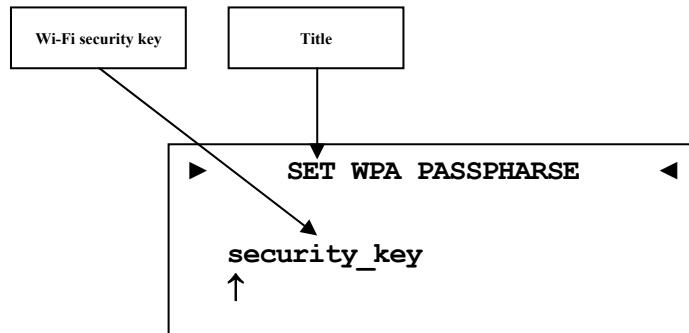
```
┌──────────────────┐   ┌──────────────────┐
│ Wi-Fi security key │   │      Title       │
└──────────────────┘   └──────────────────┘

┌──────────────────────────────────────────────┐
│  ►        SET WPA PASSPHARSE          ◄        │
│                                                │
│      security_key                              │
│      ↑                                         │
│                                                │
└──────────────────────────────────────────────┘
```

✎ Note

- Use numeric key pad on your System Remote Control *Harmony One* for letter input (SMS principle). You have to switch the cursor position forward manually. Use **left** / **right** keys on directional key pad. Confirm the adjustment with the **OK** key.

- Use key **Cancel** **9** to delete the selected character. In this case the key **Cancel** **9** does not execute a step backward. Press **Exit** to leave the menu without saving.

- The passphrase has to consist of at least 8 characters. Maximum length is 63 characters. The longer the passphrase the more secure the connection. For further information see the documentation of your router / access point.

8.6.9.4 WEP authentication

Select the WEP setup to your network.

```
┌──────────────────┐   ┌──────────────────┐
│    WEP mode      │   │      Title       │
└──────────────────┘   └──────────────────┘

┌──────────────────────────────────────────────┐
│  ►      SET WEP AUTHENTICATION        ◄        │
│                                                │
│                  open                          │
│                                                │
│                                                │
└──────────────────────────────────────────────┘
```
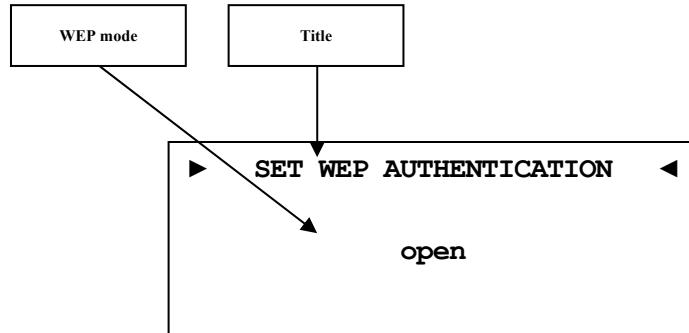
open	Open Authentication
shared	Shared-Key-Authentication

- Chose authentication mode with directional pad. Left for **open** and right for **shared**. Confirm the adjustment with the ⬚ **OK** key.

- We strongly recommend to use WPA2PSK standard to secure your Wi-Fi connection. WEP is not secure.

8.6.9.5 WEP key index

Select the Index Key 0-3

WEP index		Title

```
►        SET WEP INDEX KEY        ◄

         WEP Key Index: 0
```
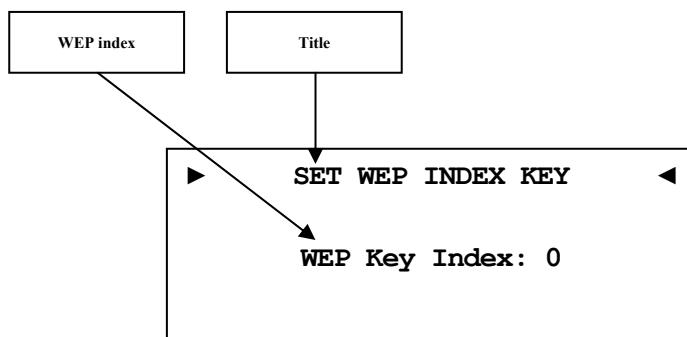
- Select the WEP key index with your directional pad **left** / **right**. Confirm the adjustment with the ⬚ **OK** key.

8.6.9.6 WEP key 0-3

Enter the WEP key phrase for key 0 - 3.
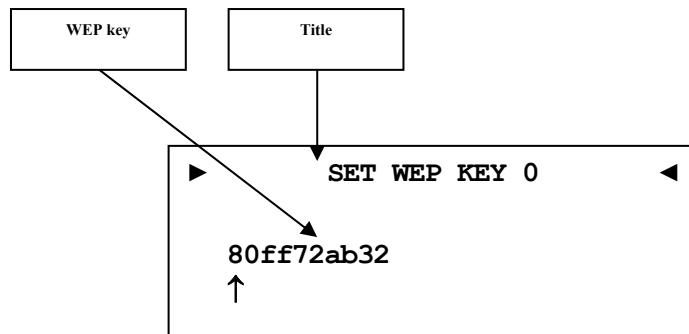
```
┌─────────────┐   ┌─────────────┐
│   WEP key   │   │    Title    │
└─────────────┘   └─────────────┘

┌──────────────────────────────────────────┐
│  ►           SET WEP KEY 0          ◄     │
│                                            │
│   80ff72ab32                               │
│   ↑                                        │
│                                            │
└──────────────────────────────────────────┘
```

✎ Note

- Use numeric key pad on your system remote control *Harmony One* for letter input (SMS principle). You have to switch the cursor position forward manually. Use **left** / **right** on directional key pad. Confirm the adjustment with $\boxed{\textbf{OK}}$ key.

- Use key **Cancel** $\boxed{9}$ to delete the selected character. In this case the key **Cancel** $\boxed{9}$ does not execute a step backward. Press $\boxed{\textbf{Exit}}$ to leave the menu without saving.

- A WEP key contains only numbers 0-9 and letters a-f.

- A WEP key consists of 10 or 26 digits.

8.6.10 Example for Network setup

In this sample all adjustments are made with the System Remote Control *Harmony One*. Compare the keys in this section **"7.1 - Key assignment DNP" on page 32**.

Choose the Device ⬛ **DNP** (see section: **"7 - Audionet system remote control " on page 31**).

Open the system menu with the ⬛ **Menu** key and mark the menu item **Network Setup** with the directional pad keys **up** / **down**. Confirm with ⬛ **OK** key.

```
    Bass Manager          ▢
    Delay Manager         ▢
  ► Network Setup      ◄  ▢

          5 of 9
```
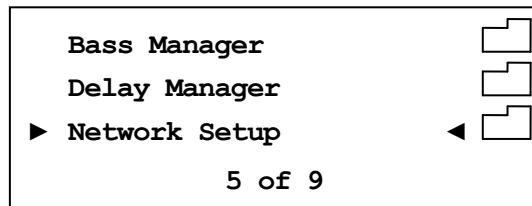
Switch to menu item **Connection Type.**

```
    Manage Network
  ► Connection Type   ◄
    DHCP

          1 of 8
```
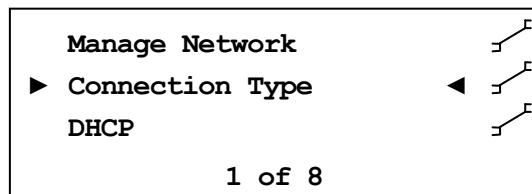
With the keys **left** / **right** of the directional pad choose your preferred connection type. Connection types **Wired Ethernet** and **Wireless (WiFi) 802.11** are available. Confirm with ⬛ **OK**.

```
  ►    SET CONNECTION TYPE    ◄


          Wired Ethernet
```
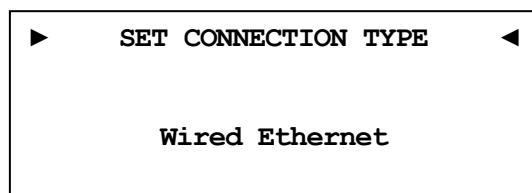
In this sample we suppose that you do not use DHCP in your network. Therefore we disable the DHCP function and set a fixed IP address. Open the menu item **DHCP**, press the left directional pad to select **disabled** and confirm with ⬛ **OK** key. The DNP saves the adjustment and switches to the Network Setup menu.

```
  ►      SET DHCP MODE      ◄


        DHCP:    disabled
```
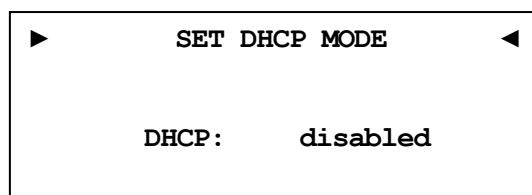
Now you have to enter the IP address you selected for your DNP. (e.g. 192.168.178.222 or 192.168.000.222 or 192.168.001.222).

```
┌─────────────────────────────────────────┐
│  ►          SET IP ADDRESS          ◄   │
│                                          │
│            000.000.000.000               │
│         ↑                                │
└─────────────────────────────────────────┘
```
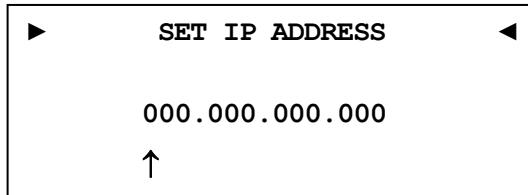
Insert the IP address directly with the numeric key pad in the lower section on your System Remote Control. Confirm with $\boxed{\textbf{OK}}$ key. The DNP applies the adjustment and switches to the Network Setup menu.

```
┌─────────────────────────────────────────┐
│  ►          SET IP ADDRESS          ◄   │
│                                          │
│            192.168.178.222               │
│                         ↑                │
└─────────────────────────────────────────┘
```
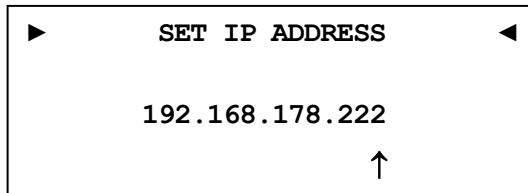
Select the menu item **IP Mask** and compare the adjustment with your data. The default value 255.255.255.000 should be the same with your network and could be confirmed with $\boxed{\textbf{OK}}$. Otherwise, enter your settings via numeric keypad.

```
┌─────────────────────────────────────────┐
│  ►            SET IP MASK           ◄   │
│                                          │
│            255.255.255.000               │
│         ↑                                │
└─────────────────────────────────────────┘
```
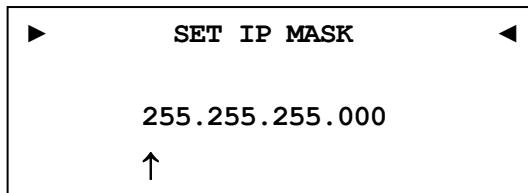
The gateway in your network is probably the router, so you have to set the routers IP address as gateway address. Enter the address which is correct within your network and confirm.

```
┌─────────────────────────────────────────┐
│  ►       SET GATEYWAY ADDRESS       ◄   │
│                                          │
│            192.168.178.001               │
│                         ↑                │
└─────────────────────────────────────────┘
```
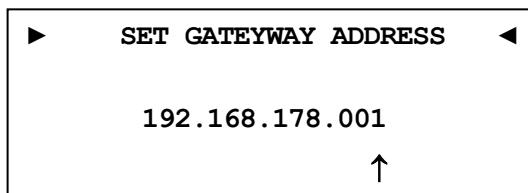
Mostly the DNS address is the same like the routers IP address. If you use another DNS, enter the DNS IP address which is correct within your network configuration. You can find a DNS address through the internet. Use a search engine to find DNS server addresses for your location.

```
┌─────────────────────────────────────────┐
│   ►        SET DNS ADDRESS        ◄      │
│                                          │
│          192.168.178.001                 │
│                              ↑           │
└─────────────────────────────────────────┘
```
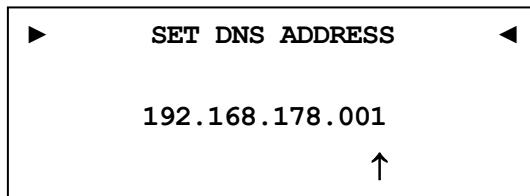
With this menu item the section fixed IP address is completed.

When you use your DNP in a wired network, the network setup is completed. You can now save and apply your adjustments. If you want to use a Wi-Fi connection skip to paragraph "Wi-Fi adjustment".

Save network profile

Within the menu item **Manage Network** select **Save & Apply Settings** and confirm with OK . The new created network profile with all its settings is now saved and will immediately be applied.

Wi-Fi adjustment

Within the menu **Manage Network** select entry **Connection Type**. Now change to **Wireless (WiFi) 802.11** and confirm with OK . Back in **Network Settings** the menu item **Wireless Setup** is now available. Now you have to enter the network name and network security key. Maybe you have to ask your network administrator or check out your router configuration.

```
┌─────────────────────────────────────────┐
│   ►  SSID                   ◄    ╱       │
│      Wireless Security           ╱       │
│                                          │
│              1 of 2                      │
└─────────────────────────────────────────┘
```
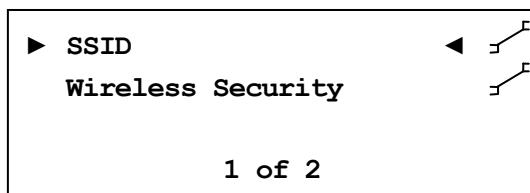
📝 **Note**

- In menu **Connection Type** the adjustment **Wireless (WiFi) 802.11** has to be made. Otherwise menu entry **Wireless Setup** is not visible.

Select **SSID** and set the network name.

```
┌─────────────────────────────────────┐
│   ►      SET WIRELESS SSID    ◄      │
│                                     │
│                                     │
│   Audionet_WLAN                     │
│                                     │
│                                     │
└─────────────────────────────────────┘
```
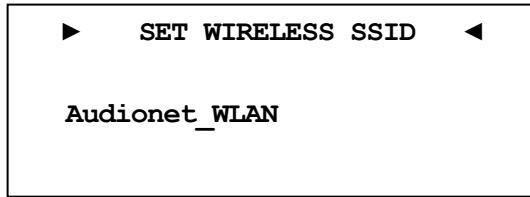
You have to be attentive to case sensitive input. Use the numeric key pad (SMS principle) for numbers and letters. With the **left** / **right** keys of the directional pad you switch to the next input position. The cursor does not step forward automatically. Confirm your input with $\boxed{\text{OK}}$.

Now select your security mode.

```
┌─────────────────────────────────────┐
│   ►      SET SECURITY MODE    ◄      │
│                                     │
│                                     │
│            WPA2PSK                  │
│                                     │
│                                     │
└─────────────────────────────────────┘
```
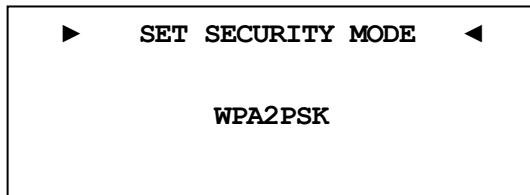
You can choose between **WEP, WPAPSK** and **WPA2PSK**. All settings have to be confirmed with $\boxed{\text{OK}}$ key. Because the WEP mode is not secure, we only describe the setup of WPA security mode.
At last insert your Wi-Fi security key into menu item **WPA Pass Phrase**. Sample: **1x2y3z4a5b**

```
┌─────────────────────────────────────┐
│   ►      SET WPA PASSPHRASE    ◄     │
│                                     │
│                                     │
│   1x2y3z4a5b                        │
│                                     │
│                                     │
└─────────────────────────────────────┘
```
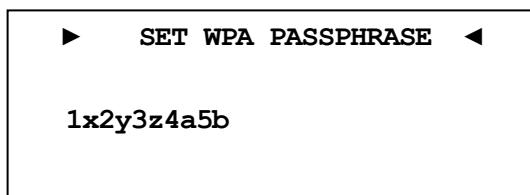
Confirm your input with $\boxed{\text{OK}}$ .If all your network adjustments are correct now your settings can be saved.

Save network profile

Within the menu item **Manage Network** select **Save & Apply Settings** and confirm with $\boxed{\text{OK}}$. The new created network profile with all its settings is now saved and will immediately be applied.

8.7 User settings

You can store 20 separate user settings to your DNP.

This function can be selected with the keys on the front panel and with the System Remote Control *Harmony One*. Furthermore you can use the software Audionet RCP (see Audionet RCP user's manual).

A user setting contains all information which is currently set, i.e. all EQ adjustments for all channels, also speaker setup (e.g. subwoofer active).

Example for usage: Store a user setting with less bass; you may call it "night mode".

8.7.1 Save user setting

```
  ►     SAVE USER SETTING      ◄


        01 - Set No. 1

```
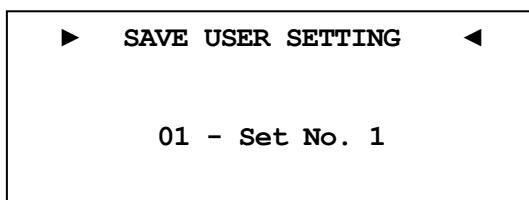
Open the system menu with ⎟ **Menu** ⎟ or with a long press on **set**. Navigate to menu entry **Save User Setting** with **up** / **down**.

Select the slot number with **left** / **right** where you would like to save the current setup.

Confirm your input with ⎟ **OK** ⎟ key.

✎ Note

- If you save to a user setting all existing data will be overwritten.

- If you do not want to set all adjustments again, you can copy the desired user setting. For that purpose load the user setting and store it to another memory slot.

8.7.2 Load user setting

```
  ►     LOAD USER SETTING      ◄


        03 - Set No. 3

```
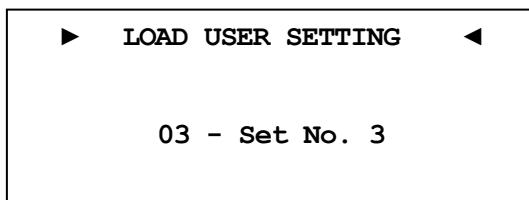
Open the system menu with ⎟ **Menu** ⎟ or with a long press on **set**. Navigate with **up** / **down** to menu entry **Load User Setting**.

Select the setting you want to load from with **left** / **right**.

Confirm your input with ⎟ **OK** ⎟ key.

8.8   Device info

```
┌────────────────────────────────────┐
│ ►          Device Info          ◄  │
│                                    │
│   Device: DNP                      │
│   MAC: 1F:2E:3D:4C:5B:6A           │
│   FW: 01.02.0012 BL: 00.08         │
│                                    │
└────────────────────────────────────┘
```
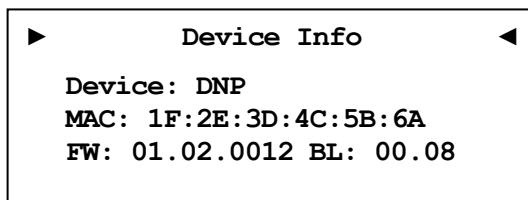
Here you will find information about your hardware and software.

- MAC address

- Firmware version

- Boot loader version

With key **left** / **right** or $\boxed{\textbf{OK}}$ you can proceed to the second page. The second page contains the following information:

```
┌────────────────────────────────────┐
│ ►        NETWORK STATUS         ◄  │
│                                    │
│    Wired Ethernet (DHCP)           │
│     IP: 192.168.178.222            │
│                                    │
└────────────────────────────────────┘
```
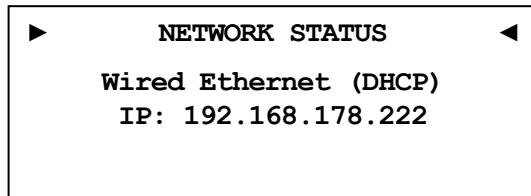
Connection Type

DHCP adjustment

IP Address of the device

Note

- Also take a look in the software Audionet RCP user's manual.

9   Additional information

9.1   Glossary

- **Switch:**

A switch is the central connection unit in a computer network. Every device is directly or indirectly connected to the switch.

- **Router:**

A router is sharing out data through the network. Mostly the router device takes over other several features, such as Gateway-Server, DHCP-Server, DNS-Server, Switch, WLAN-Access Point, Modem, UPNP-AV and NAS via USB.

- **Access Point:**

An access point is an extension of a router. If a router is incapable of providing WLAN or its WLAN range is to be extended, an access point can be connected to one of the LAN ports of the router and extend its functions.

- **Gateway:**

A gateway connects computer or router to other networks (internet) and controls these connections.

- **Modem:**

A modem establishes a connection between LAN and WAN.

Nowadays all devices mentioned above are built in one device, which is called **router**.

- **IP-Address:**

The IP-Address identifies a device in the network. It is comparable to a postal address. An IP address can only be used once within a network! IPv4 (192.168.0.1) common standard
IPv6 (`2001:db8::1428:57ab`) future standard

- **DNS-Server:**

A DNS-Server translates textual request to IP addresses and provides simple communication to the internet.
(e.g. www.audionet.de is translated to "194.000.201.201")

- **Proxy:**

Proxy-Server is mostly used in lager network facilities to guarantee more control and security to the network. Data transfer could be more efficient and speeded up. Home networks do not need a proxy.

- **LAN (Local Area Network):**

Localized network (home or company network)

- **Ethernet (cable):**

Ethernet is a technology that specifies hardware and software for wired data networks. An Ethernet connection offers a very good transmission rate and should be preferred.

- **Power LAN (mains supply):**

With power LAN technology you can connect Ethernet device through your mains supply. Transfer rate could be faster and more stable as a Wi-Fi connection. A disadvantage could be the harmonics, which are produced by such devices and pollute your mains supply.

- **WLAN (Wi-Fi):**

A Wi-Fi connection can be established very quickly, because you need no wire. The mayor disadvantages are the lower data transfer rate and the technical reliability. Physical structures or a large distance to the access point could harm the signal. We recommend wired connection.

- **WAN (Wide Area Network):**

Wide area network connections are used to connect to the internet.

- **Client:**

A client is a device which has no administrative or special jobs in a network (e.g. PC, Notebook, DNP, iPad, etc.).

- **Server:**

Servers provide services to clients or other servers. A server could have multiple services running on it.

- **NAS (Network Attached Storage):**

A NAS is a network storage device, which makes data (e.g. music, pictures, video and documents) easily accessible to all network devices.

- **UPnP-MS (Universal Plug and Play – Media Server):**

UPnP is a defined network standard to connect clients and servers. It is very easy to use, because you do not have to set up a lot. Only connect and play. UPnP media servers are the most common way to provide data through a home network. A media server could also be part of a NAS or router or it could run as program on a Computer.

- **SSID:**

The term SSID is the short form of service set identifier and describes what is generally known as the name of the network. A wireless network must have a name, so that client devices are able to find, identify and connect to the network.

- **Passphrase:**

Every wireless network should be protected by a passphrase. Client devices are only able to access a protected wireless network if they pass the passphrase check. The passphrase is used for authentication and identification and is thus an important element of network security.

9.2   Link collection

 Note

- We are not responsible for Wikipedia links. If you are looking for scientifically proven information, have a look at referenced science books in wiki article.

9.2.1   Wireless security

WPA: http://en.wikipedia.org/wiki/Wi-Fi_Protected_Access

WPA2: http://en.wikipedia.org/wiki/Wi-Fi_Protected_Access#WPA2

PSK: http://en.wikipedia.org/wiki/Pre-shared_key

EAP (Radius): http://en.wikipedia.org/wiki/RADIUS
            http://en.wikipedia.org/wiki/Extensible_Authentication_Protocol

WEP: http://en.wikipedia.org/wiki/Wired_Equivalent_Privacy

9.3   Equalizer filter type

The different EQ filters are shown below. Listed are all adjustments for each filter, and the Wikipedia link for detailed information.

📝   **Note**

- We are not responsible for Wikipedia links. If you are looking for scientifically proven information, have a look at referenced science books in wiki article.

9.3.1   Peak-Filter

Gain range: -12 dB to +6 dB

Frequency range: 20 to 20000 Hz

Filter quality (Q):   0.3 – 8.0

Wikipedia: en.wikipedia.org/wiki/Band-pass_filter

9.3.2   High shelf filter

Gain range: -12 dB to +6 dB

Frequency range: 20 to 20000 Hz

Wikipedia: en.wikipedia.org/wiki/Equalization_(audio)#Shelving_filter

9.3.3   Low shelf filter

Gain range: -12 dB to +6 dB

Frequency range: 20 to 20000 Hz

Wikipedia: en.wikipedia.org/wiki/Equalization_(audio)#Shelving_filter

9.3.4   High-pass filter 2nd order

Attenuation at set Frequency: 3 dB

Filter quality (Q): 0.3 to 2.0

Attenuation below the set frequency is 40 dB per decade.[1]

Wikipedia: en.wikipedia.org/wiki/High-pass_filter

9.3.5   Low-pass filter 2nd order

Attenuation at set Frequency: 3 dB

Filter quality (Q): 0.3 to 2.0

Attenuation above the set frequency is 40 dB per decade.

Wikipedia: en.wikipedia.org/wiki/High-pass_filter

9.3.6   High-pass filter 1st order

Attenuation at set Frequency: 3 dB

Attenuation below the set frequency is 20 dB per decade.

Wikipedia: en.wikipedia.org/wiki/High-pass_filter

9.3.7   Low-pass filter 1st order

Attenuation at set Frequency: 3 dB

Attenuation above the set frequency is 20 dB per decade.

Wikipedia: en.wikipedia.org/wiki/High-pass_filter

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[1] Note: Technical considerations describe order-n filters with attenuation of *n•20dB/Decade*, the corresponding description often used in music related topics is *n•6dB/Octave*.

9.4   Error handling (FAQ)

Problem with internet radio streams:

A good, stable and fast connection to the internet, network is the most significant item. If your local conditions are fine, dropouts may be the problem of the radio stations broadcast. Switch to another station. If there is no problem it is perhaps a problem of the radio stations broadcast. Maybe it is overloaded.

Local problems could be an overload of your network, by downloads from the internet or data which is moved through your network as well as other streaming (e.g. video). Reduce or quit connections to receive internet radio without dropouts. A bad Wi-Fi connection could also cause dropouts.

No control:

Switch off your device through the power button on the front panel. Then switch off the mains circuit breaker on the back panel. If there is no action while you press the power button on the front, directly take the mains circuit breaker on the back panel. Wait 20 to 30 seconds until you switch on again. If there is still a problem, contact your local dealer for support.

Which control has no function: If the remote control does not react try the front panel keys, maybe it is only a problem of the remote control.

Remote control has no function:

Is the rechargeable battery charged?

Is the control light shining?
No – the battery is not charged!
Have you plugged in the power supply? Is your wall socket switchable?
Yes – Maybe the rechargeable battery is defect!
Ask your local dealer for support.

The software Audionet RCP does not establish a connection to DNP:

Restart your software and research for DNP again.

If this is without success, switch off the DNP (first stand-by, then mains circuit breaker) and wait 30 seconds. Startup your DNP again and switch to NET input. Wait until **Booting** is no longer shown in the display. Now start your software Audionet RCP and search for DNP.

If there is still a problem, check out your network and network adjustment or ask your network administrator for support.

9.5 Security advice

Important

- Avoid packaging material, especially plastic bags, to come into children's hands.

- Store and operate the unit in a dry room at a reasonable room temperature.

- Avoid moisture or any liquid to get into the unit.

- Place the device with enough circulation of air.

- **Do not cover**, e.g. with a blanket.

- **Do not open** the case. Unauthorized opening will cause loss of guarantee.

- Prevent short circuit to the outputs.

- Switch off all devices if you plug any cable.

- Use a dry cloth for cleaning.

- If massive trouble on the mains power grid is to be expected. Disconnect all devices from mains to prevent electrical overload. Disconnect antenna and network connections as well.

We would like to wish you many exciting listening experiences with your new Audionet product!

If you still have any questions, don't hesitate to ask your competent Audionet dealer.

9.6   Factory defaults

Option	Adjustment
Channel Setup	For each input channel (exception listed)
Volume Offset	**+ 0 dB**
Trigger Out	**disabled**
ADC Attenuation	**0 dB** disabled (adjustment only with analog input)
DC Servo	**disabled** (adjustment only with analog input)
Digital EQ	**disabled**
Channel Name	**Digital In 1 ... 4, AES/EBU In** **Optical In 1 … 4** **Streaming In** **USB Audio In** **FM-Tuner** **Line In 1,2** **Phono** **Balanced In**
Global Setup	
Headphones	**headphones disabled,** **Audionet Link 2 active**
Display	**50%**
Balance	**+ 0 dB**
Auto start	**disabled**
By-Pass Channel	**not selected**
Power-Off Mode	**normal**
Bass Manager	
Configuration	**2.0**
Front Speaker	**Full Range**
High-Pass Q	**0.71**
X-Over Freq.	**102 Hz**
Sub 1,2 Volume Offset	**+ 0 dB**
Sub 1,2 Phase	**normal** (0°)
Delay Manager	
Distance Left	**0 cm**
Distance Right	**0 cm**
Distance Sub 1	**0 cm**
Distance Sub 2	**0 cm**
Virtual Sub Offset 1	**0 cm**
Virtual Sub Offset 2	**0 cm**
Parametrical digital EQ	for all input channel
Gain	All channel, all MPEs: **+ 0 dB**
Q	All channel, all MPEs: **1.00**
Freq.	L, R: **50,207,725,3147 & 10413 Hz** Sub1,2: **31,50,82,120 & 231 Hz**

Network Setup	
Network Profile	**default**
DHCP	**active**
IP Address	**192.168.178.222**
IP Mask	**255.255.255.000**
Gateway	**192.168.178.001**
DNS	**192.168.178.001**
RCP Port	**54321**
Wireless Setup	
SSID	**blank**
Wireless Security	**WPA2PSK**
WPA Cipher Type	**AES**
WPA Pass Phrase	**blank**
WEP Authentication	**open**
WEP Key Index	**0**
WEP Key 0	**blank**
WEP Key 1	**blank**
WEP Key 2	**blank**
WEP Key 3	**blank**

9.7   Specifications

Function	network - compatible 2.2 channel stereo preamplifier
Frequency response	Analog: 0 – 1.000.000 Hz (-3 dB) Digital: max. 96 kHz, depends on sample frequency
THD	k2 typ. -101 dB, k3 typ. -107 dB, @1 kHz
THD+N	< -108 dB @1 kHz, Vin 3Vrms
SNR	> 120 dB (A-rated)
capacitance	> 62.000 µF
Input analog	4 pair RCA jack, gold plated, Teflon isolated (WBT) 1 pair XLR balanced, gold plated (Neutrik) 5-pin connector for EPS
Input digital	4 SPDIF RCA jack, gold plated, Teflon isolated 4 SPDIF TosLink 1 pair XLR AES/EBU, 110 Ohm, gold plated, Teflon isolated (Neutrik) 1 USB (A) (for USB stick, ext. hard disk etc) 1 USB (B), USB Audio 2.0 (asynchronous) 1 RJ45 Ethernet 10/100 BASE-T 1 SMA Connector WLAN
Input impedance	Line input 50 kΩ real XLR input 7 kΩ real
Output	2 pair (Pre-Out) RCA jack, gold plated, Teflon isolated (WBT) 1 pair (Sub/MR Out) RCA jack, gold plated, Teflon isolated (WBT) 1 pair XLR balanced, gold plated 2 Audionet Link, optical 1 headphone output (TSR connector, 6,3 mm, stereo) 1 3,5mm TSR connector mono Trigger Out (12V/5V, 50mA max.) 1 Sub D9 Serial interface RS232
Mains	220 V…240 V, 50…60 Hz
Power consumption	< 1 W Stand-by max. 150 W
Dimensions	width 430 mm height 120 mm depth 360 mm
Weight	12 kg

Design	**Front:** brushed aluminum, 10 mm, black anodized, white printing or aluminum natural, 10 mm, anodized, black printing
	Display: red or blue
	Cover plate: aluminum, 4mm, black anodized
	Side plate: aluminum, 8mm, black anodized
	Chassis: sheet steel, 2mm, black varnished
Specials	- System remote control *Harmony One*
	- Remote control with software
	- automatic mains phase detection
	- separated power supply for digital and analog section
	- fully DC coupled, no condenser in signal path
	- Audionet Link output to remote control Audionet devices
	- Switchable headphone output
Options	- Phono card for MM- und MC-pick up
	- External power supply Audionet EPX

Errors and omissions excepted. Specifications and design are subject to changes without prior notice.

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